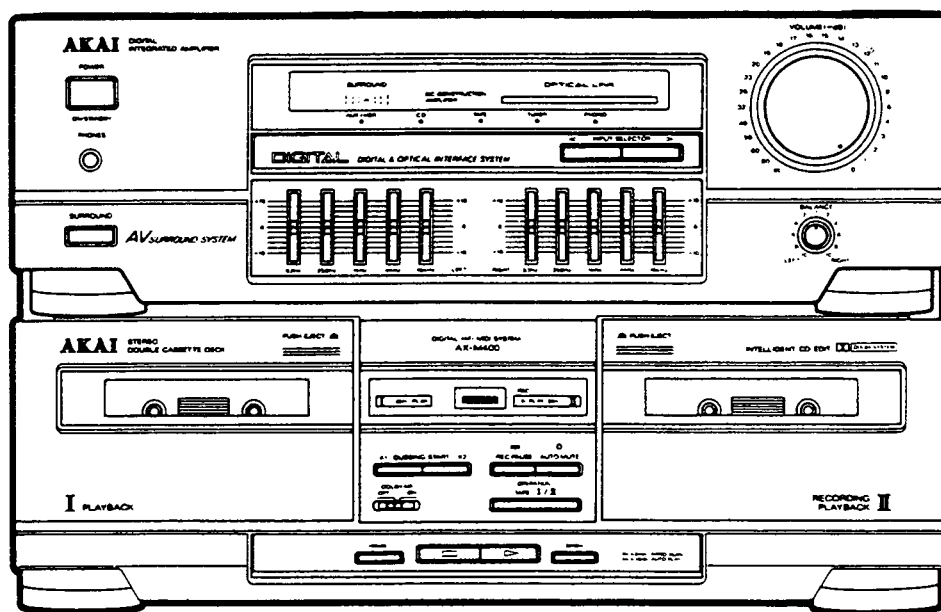


# AKAI SERVICE MANUAL




## DIGITAL HIFI MIDI SYSTEM

## MODEL AX-M400

### SPECIFICATIONS

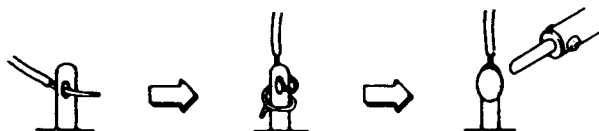
<p><b>[AMPLIFIER section]</b></p> <p>Power output ..... 45 W + 45 W (6 ohms, EIAJ)  35 W + 35 W (6 ohms, DIN)</p> <p>Music power ..... 170 W</p> <p>Peak music power output .. 400 W</p> <p>D/A converter ..... 16 bit, twin D/A converter</p> <p>Frequency response .... 10 Hz to 100 kHz (10 Hz: -1.5 dB /  100 kHz: -8 dB)</p> <p>Required speaker imped-  ance ..... 6 ohms to 16 ohms (surround: 8  ohms to 16 ohms)</p> <p>Input level/impedance</p> <p>CD(optical) ..... -22 dBm</p> <p>PHONO ..... 3.0 mV / 47 kohms</p> <p>AUX/VCR ..... 150 mV / 47 kohms</p> <p>Output level/impedance</p> <p>AUX/VCR ..... 150 mV / 47 kohms</p>	<p><b>[GENERAL]</b></p> <p>Power requirements .... AC 220 V, 50 Hz for Europe except  UK  AC 240 V, 50 Hz for UK and Austra-  lia  AC 110 V / 120 V / 220 V / 240 V,  50 / 60 Hz convertible for other  countries</p> <p>Dimensions ..... 360 (W) × 236 (H) × 310 (D) mm</p> <p>Weight ..... 7.5 kg</p>
<p><b>[CASSETTE DECK section]</b></p> <p>Frequency response</p> <p>Normal tape ..... 30 Hz to 14,000 Hz</p> <p>CrO<sub>2</sub> tape ..... 30 Hz to 15,000 Hz</p> <p>Wow &amp; flutter ..... 0.09 % (WRMS), 0.18 % (DIN)</p>	<p><b>Standard accessories</b></p> <p>Remote control unit ..... ×1</p> <p>Batteries ..... ×2</p> <p>Operator's manual ..... ×1</p>

- \* For improvement purposes, specifications and design are subject to change without notice.
- \* Noise reduction manufactured under license from Dolby Laboratories Licensing Corporation.  
"DOLBY" and  symbol are trademarks of Dolby Licensing Corporation.

## ★ SAFETY INSTRUCTIONS

### PRECAUTIONS DURING SERVICING

1. Parts identified by the ⚠ (\*) symbol are critical for safety. Replace only with parts number specified.
2. In addition to safety, other parts and assemblies are specified for conformance with such regulations as those applying to spurious radiation. These must also be replaced only with specified replacements.  
Examples: RF converters, tuner units, antenna selector switches, RF cables, noise blocking capacitors, noise blocking filters, etc.
3. Use specified internal wiring. Note especially:
  - 1) Wires covered with PVC tubing
  - 2) Double insulated wires
  - 3) High voltage leads
4. Use specified insulating materials for hazardous live parts. Note especially:
  - 1) Insulation Tape
  - 2) PVC tubing
  - 3) Spacers (Insulating Barriers)
  - 4) Insulation sheets for transistors
  - 5) Plastic screws for fixing microswitch (especially in turntable)
5. When replacing AC primary side components (transformers, power cords, noise blocking capacitors, etc.), wrap ends of wires securely about the terminals before soldering.



6. Observe that wires do not contact heat producing parts (heatsinks, oxide metal film resistors, fusible resistors, etc.).

7. Check that replaced wires do not contact sharp edged or pointed parts.
8. Also check areas surrounding repaired locations.
9. Use care that foreign objects (screws, solder droplets, etc.) do not remain inside the set.

### SAFETYCHECKAFTERSERVICING

After servicing, make measurements of leakage-current or resistance in order to determine that exposed parts are acceptably insulated from the supply circuit.

The leakage-current measurement should be done between accessible metal parts (such as chassis, ground terminal, microphone jacks, signal-input/output connectors, etc.) and the earth ground through a resistor of 1500 ohms paralleled with a 0.15  $\mu$ F capacitor, under the unit's normal working conditions. The leakage-current should be less than 0.5 mA rms AC.

The resistance measurement should be done between accessible exposed metal parts and power cord plug prongs with the power switch (if included) "ON". The resistance should be more than 2.2 Mohms.

### MAKE YOUR CONTRIBUTION TO PROTECT THE ENVIRONMENT

Used batteries with the ISO symbol for recycling as well as small accumulators (rechargeable batteries), mini-batteries (cells) and starter batteries should not be thrown into the garbage can.



Please leave them at an appropriate depot. All other household batteries can be thrown out with the household waste.

## ★ INFORMATION

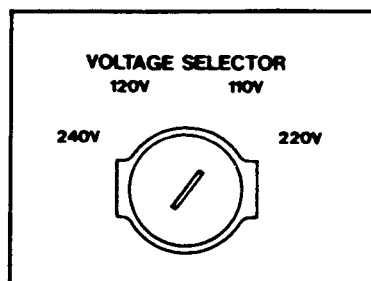
### SYMBOLS FOR PRIMARY DESTINATION

Alphabet indicates the destination of the units as listed below.

Symbols	Principal Destinations
B	UK
E	Europe (except UK)
S	Australia
V	W. Germany only
U	Universal Area
Y*	Custom version

### VOLTAGECONVERSION(U Model only)

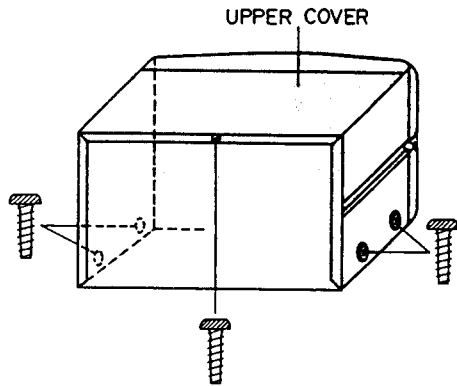
Before connecting the power cord. Set the VOLTAGE SELECTOR located on the rear panel so that the correct voltage for your area is indicated.



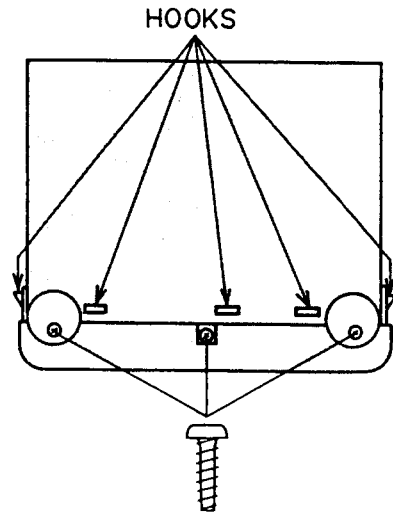
## I. DISASSEMBLY

In case of trouble, etc., necessitating dismantling, please dismantle in the order shown in the illustrations.  
Reassemble in reverse order.

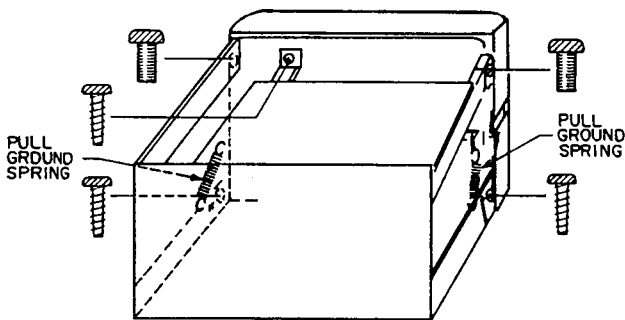
### 1. Removal of UPPER COVER



3.

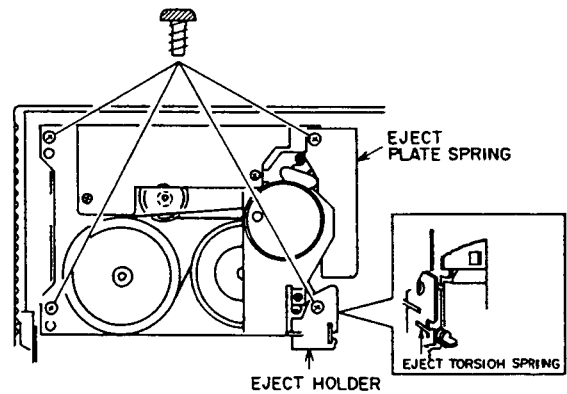


### 2. Removal of the FRONT PANEL BLOCK



- 1) Remove the PULL GROUND SPRINGS.
- 2) Disconnect all the wire's connectors from the FRONT PANEL BLOCK.
- 3) Remove five screws.

### 4. Removal of the CASSETTE MECHA BLOCK



- 1) Unhook the EJECT TORSION SPRING.
- 2) Remove the four MECHA BLK fixation screws.

## PRECAUTION BEFORE/AFTER REPAIRING THE UNIT

### [ABOUT THE POWER SUPPLY]

Power supply of the AX-M400 is controlled by the tuner. Therefore when repair of the AX-M400 is necessary, repair should be made together with the tuner. To repair the AX-M400 without tuner, use the following procedure.

- 1) While pushing the PLAY (▷) button, press the POWER button to turn the power of the AX-M400 on.
- 2) To turn off the power of the AX-M400 the AC power cord must be disconnected.

## II. PRINCIPAL PARTS LOCATION

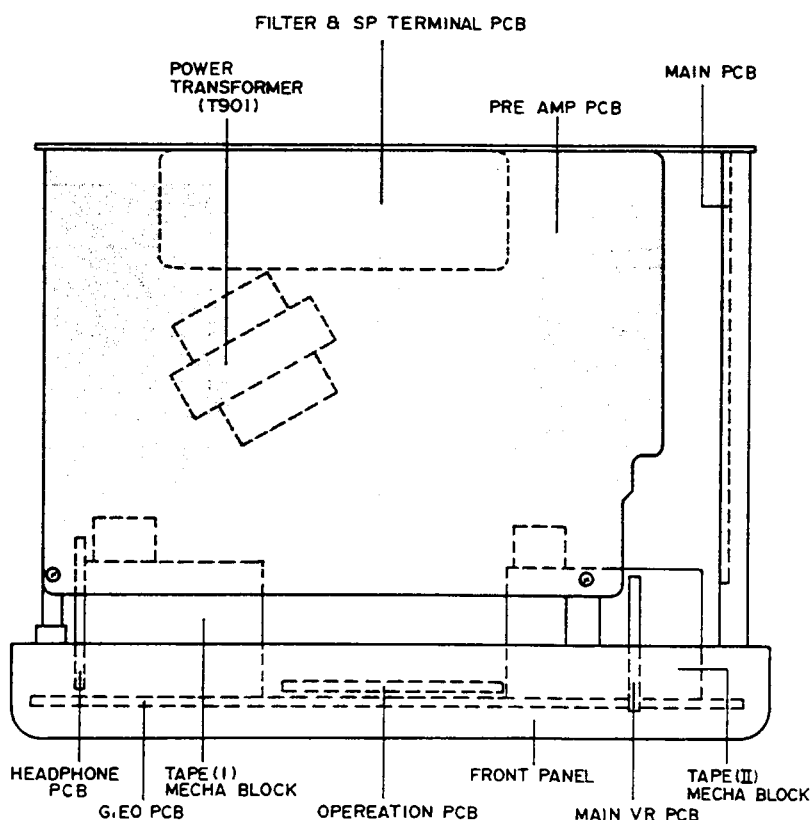


Fig. 2-1 Top view

## III. MECHANICAL ADJUSTMENT

### [PRECAUTIONS]

- \* Before adjustment, clean and demagnetize the heads and tape guides.
- \* Do not use the magnetized tools for following adjustments.

### 3-1. CONFIRMATION OF THE WINDING TORQUE IN EACH MODE

Insert a CASSETTE TORQUE METER(AT-751179) and measure the torque in each mode.

For fast forward and rewind, measure the torque at the end of the tape when tape stopped running.

### [PLAYBACK mode]

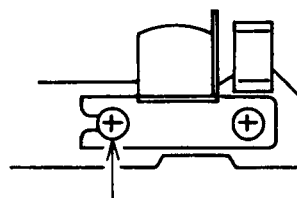
Take up torque : 35 to 75 g-cm

Back tension torque : 2 to 6 g-cm

### [FAST FORWARD and REWIND mode]

Take up torque : 70 to 160 g-cm

### 3-2. ADJUSTMENT OF THE REC/PB HEAD AZIMUTH ALIGNMENT



REC / PB HEAD AZIMUTH ALIGNMENT A SCREW

Fig.3-1

- 1) Connect the AC milli-voltmeters to L-ch and R-ch of the AUX/VCR OUT and connect the oscilloscope's input CH-1 and CH-2 to output of the AC milli-voltmeters.
- 2) Play back a 10 kHz, -15 VU test tape(AT-750778) and adjust the REC/PB HEAD AZIMUTH ALIGNMENT A SCREW so that the reading on the AC milli-voltmeters are at maximum and waveforms on the oscilloscope are in the same phase.
- 3) After adjustment, paint lock the REC/PB HEAD AZIMUTH ALIGNMENT A SCREW.

## IV. ELECTRICAL ADJUSTMENT

### [ PRECAUTIONS BEFORE ADJUSTMENT ]

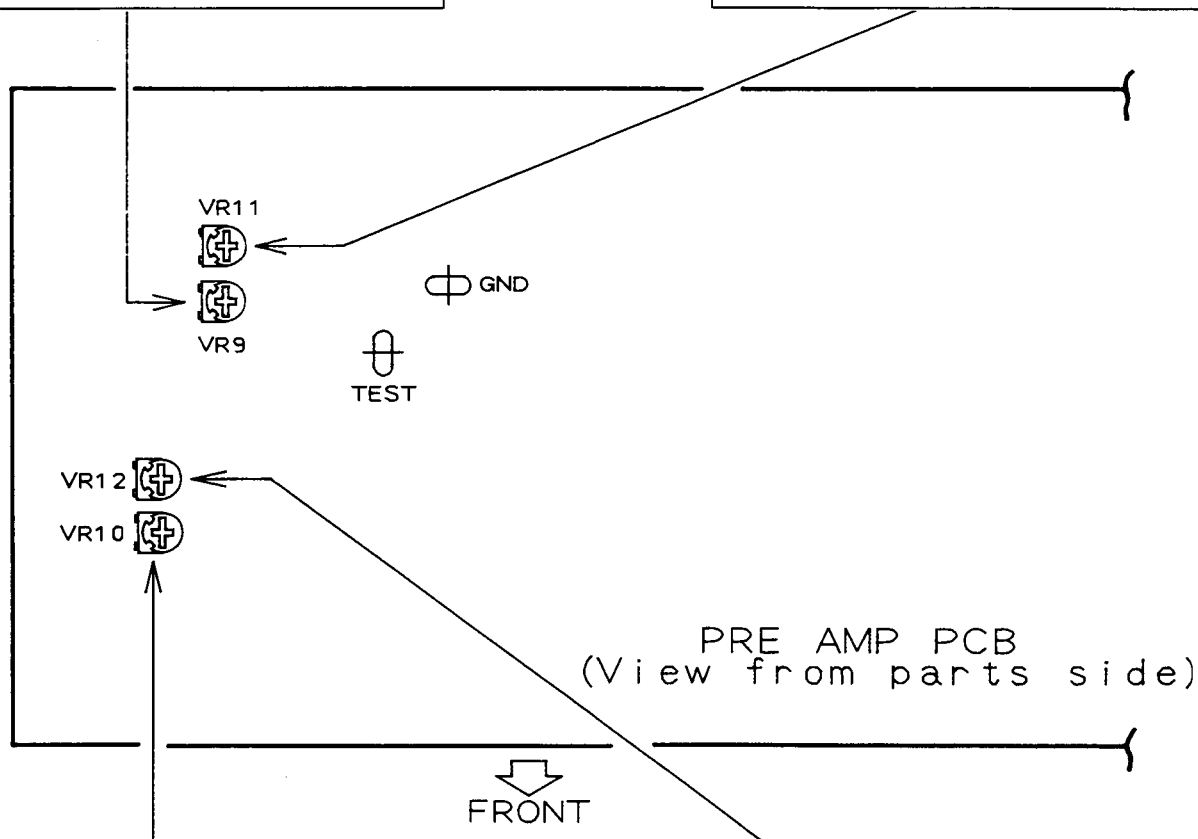
1. Before adjustment, clean and de-magnetize heads and tape guides.

STEP	ADJUSTMENT ITEM
1.	TEST TAPE/INPUT SIGNAL
2.	MODE
3.	TEST POINT, ADJUSTMENT PART
4.	(●) REMARKS, (*) RESULT

→ Adjustment part

1	TAPE I (× 2) TAPE SPEED
1.	3,150 test tape (AT-751263)
2.	PLAY (connect TEST to GND and push × 2 DUBBING START button)
3.	AUX/VCR OUT, VR9
4.	● Connect a frequency counter to AUX/VCR OUT. *6,310 ± 5 Hz

2	TAPE I NORMAL TAPE SPEED
1.	3,150 test tape (AT-751263)
2.	PLAY
3.	AUX/VCR OUT, VR11
4.	● Connect a frequency counter to AUX/VCR OUT. *3,160 ± 5 Hz



3	TAPE II (× 2) TAPE SPEED
1.	3,150 test tape (AT-751263)
2.	PLAY (connect TEST to GND and push × 2 DUBBING START button)
3.	AUX/VCR OUT, VR10
4.	● Connect a frequency counter to AUX/VCR OUT. *5 Hz to 10 Hz lower than the result in STEP 1 TAPE I (× 2) TAPE SPEED.

4	TAPE II NORMAL TAPE SPEED
1.	3,150 test tape (AT-751263)
2.	PLAY
3.	AUX/VCR OUT, VR12
4.	● Connect a frequency counter to AUX/VCR OUT. *5 Hz to 10 Hz lower than the result in STEP 2 TAPE I NORMAL TAPE SPEED.

## V. PARTS LIST

### ATTENTION

1. When placing an order for parts, be sure to list Part No., Model No. and the description of each part. Otherwise, the non-delivery of the part or the delivery of a wrong part may result.
2. Please make sure that Part No. is correct when ordering.  
If not, a part different from the one you ordered may be delivered.
3. Since the parts shown in Parts List of Preliminary Service Manual may have been the subject of changes, please use this Parts List for all future reference.

### HOW TO USE THIS PARTS LIST

1. This Parts List lists those parts which are considered necessary for repairs. Other common parts, such as resistors and capacitors, are listed in the "Common List for Service Parts" from which these parts should be selected and stocked.
2. The Recommended Spare Parts List shows those parts in the Parts List which are considered particularly important for service.
3. Parts not shown in the Parts List and "Common List for Service Parts" will not in principle be supplied.
4. How to read the Parts List.

a) Mechanism Block

#### 2. HEAD BASE BLOCK

Ref.No.	Part No.	Description
1	BH-T2023A320A	HEAD BASE BLOCK
2	HP-H2206A010A	HEAD R/P PR4-8FU C
3	ZS-477876	PAN20×03STL CMT
4	ZS-536488	BID20×08STL CMT
5	ZG-402895	SP CS ANGLE ADJUST

SP (Service Parts) Classification

This number corresponds with the individual parts index number in that figure.

b) PC Board

#### 6. MAIN PC BOARD

Ref.No.	Part No.	Description
IC1	EI-324536	IC HD14049BP
IC2	EI-336801	IC MB8841-564M
C1A	EC-338399	C MMY V 223M 250AC [U,E,B,S]
C1B	EC-350949	C MMY V 223M 250DC [J]
C1C	EC-338397	C MMY V 223M 125AC [C,A]
X1	EI-318384	OSC X'TAL NC-18C

Symbols for primary destination

[A] : AAL (U.S.A)      [S] : SAA (Australia)  
[B] : BEAB (England) [U] : U/T (Universa Area)  
[C] : CSA (Canada)  
[E] : CEE (Europe)    [V] : VDE (W. Germany)  
[J] : JPN (Janan)     [Y] : Custom Version

SP (Service Parts) Classification

These reference symbols correspond with component symbols in the Schematic Diagrams.

The available PC Board Blocks are listed separately.

### WARNING

△ (\*) INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURE'S RECOMMENDED PARTS.

### AVERTISSEMENT

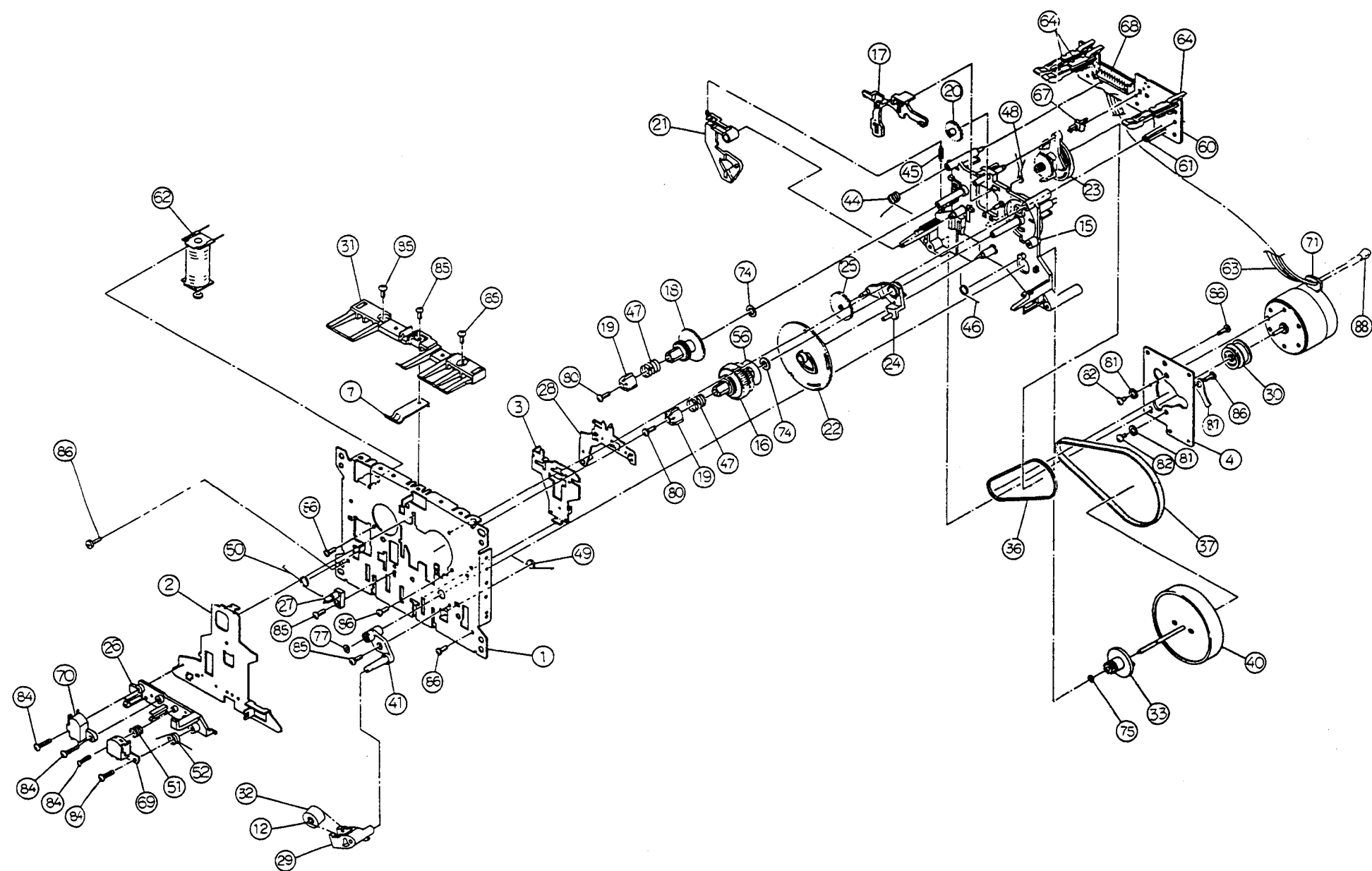
△ (\*) IL INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT.

1.RECOMMENDED SPARE PARTS

We suggest you to stock the following Recommended Spare Part items listed below since they can cover most of the routine service.

Ref.No.	Part No.	Description	Ref.No.	Part No.	Description
1	BB-394690M	MECHA GAK-5PB-1	71	ET-354364	TR DTC143TS
2	BB-394691M	MECHA GAK-5RP	72	ET-373391	TR DTC143ZS
3	BM-732433M	MOTOR EG-530KD-2B	73	ET-354414	TR DTC144ES
4	*BT-394695M	TRANS POW C1026-BS			[U]
5	*BT-394693M	TRANS POW C1026-EV	74	ET-394570J	TR 2SA1038 S T05
6	*BT-394692M	TRANS POW C1026-U	75	ET-353899	TR 2SA1317 S,T,U
7	ED-394723J	D LED GL3HY44 YELLOW	76	ET-352726	TR 2SA1392 T,U
8	ED-389638J	D LED GL3HY47 YELLOW	77	ET-389803J	TR 2SA933S R,S
9	ED-382365J	D LED SLR-34VC3F RED	78	ET-366365	TR 2SB1185 E,F
10	ED-394416J	D LED SLV-31VT3F RED	79	ET-389251J	TR 2SC1740S S F05
11	*ED-357036	D SILICON DBA20B-K15 100/ 2.0A	80	ET-397156J	TR 2SC2274K E,F
12	ED-307572	D SILICON H 1SS131	81	ET-394571J	TR 2SC2389 S,E T05
13	ED-624903	D SILICON H 1S2473	82	ET-397160J	TR 2SC3330 R,S,T,U,V
14	*ED-394708J	D SILICON RBA402 200/4.0A	83	ET-397152J	TR 2SC3382 T,U
15	*ED-389840J	D SILICON 1SR139-100HS F10	84	ET-378524J	TR 2SC3383 S,T,U
16	ED-391003J	D ZENER H HZS4C3	85	ET-366581	TR 2SD1762 E,F
17	ED-364033	D ZENER H HZS6.8B3J F05	86	ET-385916J	TR 2SD2159 U,V F05
18	ED-346558	D ZENER H HZ12B1L	87	EV-394517J	VR ROTARY RK11K113 SPCL W104
19	ED-346560	D ZENER H HZ12B3L	88	EV-394721J	VR SLIDE RS20H113D B104
20	ED-346627	D ZENER H HZ33 2	89	EV-394458J	VR SPL RK16Y12MA A104X2
21	ED-309069	D ZENER H HZ6 B2	90	HE-732432M	HEAD E LE15A-C1
22	ED-307610	D ZENER H HZ7 A2			[R/PB MECHA BLOCK]
23	ED-346604	D ZENER H HZ7 B2	91	HR-732431M	HEAD RP MS15R-AA2N4
24	*EF-355398	FUSE BET T 250V 2.00A	92	MB-732415M	CLUTCH BELT (C)
		[U]	93	MB-732416M	DRIVE BELT
25	*EF-359225	FUSE BET T 250V 3.15A	94	MP-732411M	PINCH ROLLER
26	*EF-359086	FUSE BET T 250V 4.00A			
27	*EF-355374	FUSE BET T 250V 500MA			
28	*EF-358974	FUSE BET T 250V 630MA			
29	*EF-601964	FUSE SEMKO T 250V 1.60A			
30	EI-367572	IC BA15218			
31	EI-360585	IC BU4051B			
32	EI-389322J	IC CXA1101P			
33	EI-394572J	IC CXA1115BP			
34	EI-394574J	IC LA2000			
35	EI-359053	IC LA3600			
36	EI-337008	IC LC7800			
37	EI-361133	IC MC14053B			
38	EI-393325J	IC M5218AP			
39	EI-390594J	IC PD0052			
40	EI-381024J	IC SM5807EP			
41	*EI-394709J	IC STK4142-2			
42	EI-377101	IC UPC7805HF			
43	EI-394518J	IC UPD6376CX			
44	EI-395039J	IC UPD75108CW FXAMPDK2-B63			
45	EI-373957J1	OSC CE CST4.19MGW 4.194MHZ			
46	EJ-394442J	SOCKET 52303-1211 12P			
47	EJ-394445J	SOCKET 52303-1411 14P			
48	*EO-376998J	COIL LF LF-2C17-02			
49	EO-393710J	COIL OSC 1 C1026 100.0KHZ			
50	*EQ-394450J	RELAY POW DG12D1-Q(M) 12V			
		[U]			
51	*ER-328278	R FUSE H ERD2FC 1/4W 10R0G			
52	*ER-200746	R FUSE H ERD2FC 1/4W 1000G			
53	ES-732430M	SW LEAF LSA-1114F			
54	ES-732429M	SW LEAF LSA-1146-2AU			
55	ES-394914J	SW PUSH SPUL12 4-M3.2 2-04-02S			
		[SURROUND SW]			
56	*ES-349070	SW SELECTOR YKS11-0002 02-4			
57	ES-390620J	SW SLIDE SSSF 01-02N			
58	ES-349367	SW TACT SKHHAK003A			
59	ES-394818J	SW TACT SOR-123HS T05			
60	ET-732427M	DETECTOR NJL5165K			
61	ET-356336	TR DTA114ES			
62	ET-369248	TR DTA114YS			
63	ET-373382	TR DTA143ZS			
64	ET-354415	TR DTA144ES			
65	ET-353897	TR DTC114ES			
66	ET-360399	TR DTC114TS			
67	ET-354365	TR DTC114YS			
68	ET-354371	TR DTC124ES			
69	ET-373392	TR DTC124XS			
70	ET-364060	TR DTC143ES			

MECHA BLOCK (GAK-5PB-1, GAK-5RP)





## 2. MECHA BLOCK (GAK-5PB-1, GAK-5RP)

Ref.No.	Part No.	Description
7	ZG-732392M	PACK SPRING
12	MS-732393M	P ROLLER SHAFT
16	MT-732394M	REEL ASSY (T)
17	ML-732395M	BRAKE ARM
18	MT-732396M	REEL (S)
19	MT-732397M	REEL CAP (B)
20	MZ-732398M	FF GEAR
22	MZ-732401M	PLAY CAM GEAR
23	MZ-732402M	CLUTCH ASSY
25	MZ-732404M	PLAY GEAR
26	HZ-732405M	HEAD BASE
30	MR-732409M	MOTOR PULLEY (C)
32	MP-732411M	PINCH ROLLER
33	MZ-732412M	FLYWHEEL GEAR
36	MB-732415M	CLUTCH BELT (C)
37	MB-732416M	DRIVE BELT
40	MI-732417M	FLYWHEEL
41	MV-732418M	HOUSING ASSY
47	ZG-732421M	REEL SPRING
51	ZG-726027J	SP HEAD (RP)
52	ZG-732425M	P ROLLER SPRING
56	MZ-732426M	REFLECT SEAL
61	ET-732427M	DETECTOR NJL5165K
62	EP-732428M	SOLENOID ASSY
64	ES-732429M	SW LEAF LSA-1146-2AU
67	ES-732430M	SW LEAF LSA-1114F
69	HR-732431M	HEAD RP MS15R-AA2N4
70	HE-732432M	HEAD E LE15A-C1
71	BM-732433M	MOTOR EG-530KD-2B
75	ZW-726629J	PSW21X040X025
77	ZW-725589J	PSW16X060X050
80	ZS-732434M	SCREW 1.7X6SPL
85	ZS-725379J	T2BID20X04

### NOTE:

Parts will not be supplied if they are not listed in the parts list, even if they appear on the assembling illustrations with reference No.

## 3. P.C BOARD

Ref.No.	Part No.	Description
1	BA-C1026A020A	PC( # ) MAIN BLK AX-M400(U)
2	BA-C1026A020B	PC( # ) MAIN BLK AX-M400(E)
3	BA-C1026A020C	PC( # ) MAIN BLK AX-M400(V)
4	BA-C1026A030A	PC PRE AMP BLK AX-M400(U)
5	BA-C1026A030B	PC PRE AMP BLK AX-M400(V)
6	BA-C1026A040A	PC( # ) GEQ BLK AX-M400
7	BA-C1026A080A	PC OPERATION BLK AX-M400

PC ( # ) MAIN P.C BOARD CONTENTS OF FOLLOWING P.C BOARD.

- MAIN P.C BOARD
- FILTER & SP TERMINAL P.C BOARD
- HEADPHONE P.C BOARD

PC ( # ) GEQ BLK P.C BOARD CONTENTS OF FOLLOWING P.C BOARD.

- GEQ P.C BOARD
- MAIN VR P.C BOARD

## 4. MAIN AMP P.C BOARD

Ref.No.	Part No.	Description
D1	*ED-394708J	D SILICON RBA402 200/4.0A
D2	*ED-389840J	D SILICON 1SR139-100HS F10
D3	*ED-389840J	D SILICON 1SR139-100HS F10
D4	*ED-389840J	D SILICON 1SR139-100HS F10
D5	*ED-389840J	D SILICON 1SR139-100HS F10
D6	ED-346560	D ZENER H HZ12B3L
D7	ED-346558	D ZENER H HZ12B1L
D8	*ED-389840J	D SILICON 1SR139-100HS F10
D9	*ED-389840J	D SILICON 1SR139-100HS F10
D10	*ED-389840J	D SILICON 1SR139-100HS F10
D11	ED-346627	D ZENER H HZ33 2
D12	ED-307610	D ZENER H HZ7 A2
D13	ED-307572	D SILICON H 1SS131
D14	ED-307572	D SILICON H 1SS131
D15	ED-307572	D SILICON H 1SS131
D16	ED-307572	D SILICON H 1SS131
D17	*ED-357036	D SILICON DBA20B-K15 100/ 2.0A
D18	ED-307572	D SILICON H 1SS131
D20	ED-346560	D ZENER H HZ12B3L
D21	*ED-389840J	D SILICON 1SR139-100HS F10
D22	ED-307572	D SILICON H 1SS131
D23	ED-346604	D ZENER H HZ7 B2
D24	*ED-389840J	D SILICON 1SR139-100HS F10
D26	*ED-389840J	D SILICON 1SR139-100HS F10
D28	*ED-389840J	D SILICON 1SR139-100HS F10
F1	*EF-359086	FUSE BET T 250V 4.00A
F2	*EF-359086	FUSE BET T 250V 4.00A
F3	*EF-355374	FUSE BET T 250V 500MA
F4	*EF-355374	FUSE BET T 250V 500MA
F5	*EF-601964	FUSE SEMKO T 250V 1.60A
F6	*EF-358974	FUSE BET T 250V 630MA
F7	*EF-358974	FUSE BET T 250V 630MA
F8	*EF-359225	FUSE BET T 250V 3.15A
F9	*EF-359225	FUSE BET T 250V 3.15A
FR12	*ER-200746	R FUSE H ERD2FC 1/4W 1000G
FR13	*ER-200746	R FUSE H ERD2FC 1/4W 1000G
FR19	*ER-328278	R FUSE H ERD2FC 1/4W 10R0G
FR33	*ER-328278	R FUSE H ERD2FC 1/4W 10R0G
IC1	*EI-394709J	IC STK4142-2
IC2	EI-377101	IC UPC7805HF
L1	EO-337880	COIL FIX 2 202AK-018 2R2K
L2	EO-337880	COIL FIX 2 202AK-018 2R2K
P21	EJ-394445J	SOCKET 52303-1411 14P
P22	EJ-394442J	SOCKET 52303-1211 12P
R23	ER-397193J	R OMF V T05 FS 1W 100J
R24	ER-397193J	R OMF V T05 FS 1W 100J
R38	ER-397193J	R OMF V T05 FS 1W 100J
R39	ER-397193J	R OMF V T05 FS 1W 100J
TR1	ET-366581	TR 2SD1762 E,F
TR2	ET-397152J	TR 2SC3382 T,U
TR3	ET-366365	TR 2SB1185 E,F
TR4	ET-366365	TR 2SB1185 E,F
TR5	ET-397152J	TR 2SC3382 T,U
TR6	ET-389803J	TR 2SA933S R,S
TR7	ET-389803J	TR 2SA933S R,S
TR8	ET-366581	TR 2SD1762 E,F
TR9	ET-389251J	TR 2SC1740S S F05
TR10	ET-373392	TR DTC124XS
TR12	ET-354414	TR DTC144ES
TR13	ET-397152J	[U] TR 2SC3382 T,U
TR14	ET-354371	[U] TR DTC124ES
TR15	ET-354414	TR DTC144ES
TR16	ET-356336	TR DTA114ES
TR17	ET-378524J	TR 2SC3383 S,T,U
TR18	ET-356336	TR DTA114ES
TR19	ET-354414	TR DTC144ES
TR20	ET-354365	TR DTC114YS

## 5. PRE AMP P.C BOARD

Ref.No.	Part No.	Description
D1	ED-364033	D ZENER H HZS6.8B3J F05
D2	ED-364033	D ZENER H HZS6.8B3J F05
D3	ED-307572	D SILICON H 1SS131
D4	ED-624903	D SILICON H 1S2473
D5	ED-307572	D SILICON H 1SS131
D6	ED-307572	D SILICON H 1SS131
D7	ED-309069	D ZENER H HZ6 B2
D8	ED-307572	D SILICON H 1SS131
D9	ED-307572	D SILICON H 1SS131
D10	ED-307572	D SILICON H 1SS131
D11	ED-307572	D SILICON H 1SS131
D12	ED-307572	D SILICON H 1SS131
D13	ED-307572	D SILICON H 1SS131
D14	ED-391003J	D ZENER H HZS4C3
D15	ED-389840J	D SILICON 1SR139-100HS F10
D16	ED-389840J	D SILICON 1SR139-100HS F10
D17	ED-307572	D SILICON H 1SS131
D18	ED-307572	D SILICON H 1SS131
D19	ED-307572	D SILICON H 1SS131
D20	ED-624903	D SILICON H 1S2473
D21	ED-307572	D SILICON H 1SS131
D22	ED-307572	D SILICON H 1SS131
D23	ED-307572	D SILICON H 1SS131
D24	ED-624903	D SILICON H 1S2473
D25	ED-624903	D SILICON H 1S2473
D26	ED-307572	D SILICON H 1SS131
D27	ED-307572	D SILICON H 1SS131
D28	ED-389840J	D SILICON 1SR139-100HS F10
D29	ED-307572	D SILICON H 1SS131
L3	EO-356809	COIL TUN 1 100Z-121 100.00KHZ
L4	EO-356809	COIL TUN 1 100Z-121 100.00KHZ
L5	EO-356809	COIL TUN 1 100Z-121 100.00KHZ
L6	EO-356809	COIL TUN 1 100Z-121 100.00KHZ
IC1	EI-367572	IC BA15218
IC2	EI-360585	IC BU4051B
IC3	EI-360585	IC BU4051B
IC4	EI-367572	IC BA15218
IC5	EI-361133	IC MC14053B
IC6	EI-390594J	IC PD0052
IC7	EI-381024J	IC SM5807EP
IC8	EI-394518J	IC UPD6376CX
IC9	EI-393325J	IC M5218AP
IC10	EI-394572J	IC CXA1115BP
IC11	EI-394574J	IC LA2000
IC12	EI-389322J	IC CXA1101P
CI13	EI-367572	IC BA15218
IC14	EI-395039J	IC UPD75108CW FXAMPDK2-B63
IC15	EI-337008	IC LC7800
J1	EJ-394459J	SOCKET OPTICAL GP1F32R
J2	EJ-394438J	PIN J YKC21-3050 SEALED 6P
L1	EO-393709J	COIL FIX3 E1472T822J 822J/472K
L2	EO-393709J	COIL FIX3 E1472T822J 822J/472K
L10	EH-388140J	FILTER EMI BL02RN1-R62
TR1	ET-352726	TR 2SA1392 T,U
TR2	ET-354414	TR DTC144ES
TR3	ET-356336	TR DTA114ES
TR4	ET-354414	TR DTC144ES
TR5	ET-353897	TR DTC114ES
TR6	ET-353897	TR DTC114ES
TR7	ET-354415	TR DTA144ES
TR8	ET-378524J	TR 2SC3383 S,T,U
TR9	ET-378524J	TR 2SC3383 S,T,U
TR10	ET-378524J	TR 2SC3383 S,T,U
TR11	ET-378524J	TR 2SC3383 S,T,U
TR12	ET-373392	TR DTC124XS
TR13	ET-373392	TR DTC124XS
TR15	ET-373392	TR DTC124XS
TR16	ET-373392	TR DTC124XS
TR17	ET-354364	TR DTC143TS
TR18	ET-354364	TR DTC143TS
TR19	ET-360399	TR DTC114TS
TR20	ET-360399	TR DTC114TS
TR21	ET-360399	TR DTC114TS
TR22	ET-360399	TR DTC114TS
TR23	ET-397160J	TR 2SC3330 R,S,T,U,V
TR24	ET-397160J	TR 2SC3330 R,S,T,U,V
TR25	ET-369248	TR DTA114YS
TR26	ET-397160J	TR 2SC3330 R,S,T,U,V
TR27	ET-397160J	TR 2SC3330 R,S,T,U,V
TR28	ET-397160J	TR 2SC3330 R,S,T,U,V

Ref.No.	Part No.	Description
TR29	ET-397160J	TR 2SC3330 R,S,T,U,V
TR30	ET-397160J	TR 2SC3330 R,S,T,U,V
TR31	ET-397160J	TR 2SC3330 R,S,T,U,V
TR32	ET-397160J	TR 2SC3330 R,S,T,U,V
TR33	ET-397160J	TR 2SC3330 R,S,T,U,V
TR34	ET-354364	TR DTC143TS
TR35	ET-354364	TR DTC143TS
TR36	ET-354364	TR DTC143TS
TR37	ET-354364	TR DTC143TS
TR38	ET-354364	TR DTC143TS
TR39	ET-354364	TR DTC143TS
TR40	ET-397160J	TR 2SC3330 R,S,T,U,V
TR41	ET-397160J	TR 2SC3330 R,S,T,U,V
TR42	ET-394571J	TR 2SC2389 S,E T05
TR43	ET-394571J	TR 2SC2389 S,E T05
TR44	ET-394571J	TR 2SC2389 S,E T05
TR45	ET-394571J	TR 2SC2389 S,E T05
TR46	ET-394570J	TR 2SA1038 S T05
TR47	ET-373392	TR DTC124XS
TR48	ET-373392	TR DTC124XS
TR49	ET-397156J	TR 2SC2274K E,F
TR50	ET-360399	TR DTC114TS
TR51	ET-397160J	TR 2SC3330 R,S,T,U,V
TR52	ET-366581	TR 2SD1762 E,F
TR53	ET-397160J	TR 2SC3330 R,S,T,U,V
TR54	ET-397160J	TR 2SC3330 R,S,T,U,V
TR55	ET-373391	TR DTC143ZS
TR56	ET-354365	TR DTC114YS
TR57	ET-354365	TR DTC114YS
TR58	ET-360399	TR DTC114TS
TR59	ET-352726	TR 2SA1392 T,U
TR60	ET-353899	TR 2SA1317 S,T,U
TR61	ET-353899	TR 2SA1317 S,T,U
TR62	ET-397160J	TR 2SC3330 R,S,T,U,V
TR63	ET-397160J	TR 2SC3330 R,S,T,U,V
TR64	ET-397160J	TR 2SC3330 R,S,T,U,V
TR65	ET-356336	TR DTA114ES
TR66	ET-397160J	TR 2SC3330 R,S,T,U,V
TR67	ET-385916J	TR 2SD2159 U,V F05
TR68	ET-385916J	TR 2SD2159 U,V F05
TR69	ET-385916J	TR 2SD2159 U,V F05
TR70	ET-354414	TR DTC144ES
TR71	ET-354414	TR DTC144ES
TR72	ET-356336	TR DTA114ES
TR73	ET-373382	TR DTA143ZS
TR74	ET-373382	TR DTA143ZS
TR75	ET-373382	TR DTA143ZS
TR76	ET-373382	TR DTA143ZS
TR77	ET-373382	TR DTA143ZS
TR78	ET-373382	TR DTA143ZS
TR79	ET-373382	TR DTA143ZS
TR80	ET-373382	TR DTA143ZS
TR81	ET-353897	TR DTC114ES
TR82	ET-356336	TR DTA114ES
TR83	ET-364060	TR DTC143ES
TR84	ET-378524J	TR 2SC3383 S,T,U
TR85	ET-354365	TR DTC114YS
TR87	ET-352726	TR 2SA1392 T,U
TR89	ET-353897	TR DTC114ES
TR90	ET-397156J	TR 2SC2274K E,F
TR91	ET-356336	TR DTA114ES
TR92	ET-353897	TR DTC114ES
TR93	ET-397160J	TR 2SC3330 R,S,T,U,V
TR94	ET-397160J	TR 2SC3330 R,S,T,U,V
TR95	ET-356336	TR DTA114ES
TR96	ET-354414	TR DTC144ES
TR97	ET-353897	TR DTC114ES
T1	EO-393710J	COIL OSC 1 C1026 100.0KHZ
VR9	EV-394561J	R S-FIX H V8K4-11(1S) 0.10W102
VR10	EV-394561J	R S-FIX H V8K4-11(1S) 0.10W102
VR11	EV-367524	R S-FIX H V8K4-11(1S) 0.10W501
VR12	EV-367524	R S-FIX H V8K4-11(1S) 0.10W501
X1	EI-373957J1	OSC CE CST4.19MGW 4.194MHZ

## 6. GEQ P.C BOARD

Ref.No.	Part No.	Description
D1	ED-394416J	D LED SLV-31VT3F RED
D2	ED-394416J	D LED SLV-31VT3F RED
D3	ED-394416J	D LED SLV-31VT3F RED
D4	ED-394416J	D LED SLV-31VT3F RED
D5	ED-394723J	D LED GL3HY44 YELLOW
D6	ED-394723J	D LED GL3HY44 YELLOW
D7	ED-394723J	D LED GL3HY44 YELLOW
D8	ED-394723J	D LED GL3HY44 YELLOW
D9	ED-394723J	D LED GL3HY44 YELLOW
D10	ED-389638J	D LED GL3HY47 YELLOW
D11	ED-389638J	D LED GL3HY47 YELLOW
D12	ED-389638J	D LED GL3HY47 YELLOW
D13	ED-389638J	D LED GL3HY47 YELLOW
D15	ED-389638J	D LED GL3HY47 YELLOW
IC1	EI-359053	IC LA3600
IC2	EI-359053	IC LA3600
TR1	ET-354414	TR DTC144ES
TR2	ET-356336	TR DTA114ES
TR3	ET-378524J	TR 2SC3383 S,T,U
TR4	ET-378524J	TR 2SC3383 S,T,U
TR5	ET-373382	TR DTA143ZS
TR6	ET-373382	TR DTA143ZS
TR7	ET-373382	TR DTA143ZS
TR8	ET-373382	TR DTA143ZS
TR9	ET-373382	TR DTA143ZS
TR10	ET-373382	TR DTA143ZS
TR12	ET-373382	TR DTA143ZS
TR13	ET-373382	TR DTA143ZS
SW1	ES-349367	SW TACT SKHHAK003A
SW2	ES-349367	SW TACT SKHHAK003A
SW3	ES-349367	SW TACT SKHHAK003A
VR1	EV-394721J	VR SLIDE RS20H113D B104
VR2	EV-394721J	VR SLIDE RS20H113D B104
VR3	EV-394721J	VR SLIDE RS20H113D B104
VR4	EV-394721J	VR SLIDE RS20H113D B104
VR5	EV-394721J	VR SLIDE RS20H113D B104
VR6	EV-394721J	VR SLIDE RS20H113D B104
VR7	EV-394721J	VR SLIDE RS20H113D B104
VR8	EV-394721J	VR SLIDE RS20H113D B104
VR9	EV-394721J	VR SLIDE RS20H113D B104
VR10	EV-394721J	VR SLIDE RS20H113D B104
VR11	EV-394517J	VR ROTARY RK11K113 SPCL W104

## 7. OPERATION P.C BOARD

Ref.No.	Part No.	Description
D801	ED-394723J	D LED GL3HY44 YELLOW
D802	ED-394723J	D LED GL3HY44 YELLOW
D805	ED-394723J	D LED GL3HY44 YELLOW
D806	ED-394723J	D LED GL3HY44 YELLOW
D808	ED-382365J	D LED SLR-34VC3F RED
D809	ED-394723J	D LED GL3HY44 YELLOW
D810	ED-394723J	D LED GL3HY44 YELLOW
D811	ED-382365J	D LED SLR-34VC3F RED
D812	ED-382365J	D LED SLR-34VC3F RED
D813	ED-394723J	D LED GL3HY44 YELLOW
SW801	ES-390620J	SW SLIDE SSSF 01-02N
TS804	ES-394818J	SW TACT SOR-123HS T05
TS805	ES-394818J	SW TACT SOR-123HS T05
TS806	ES-394818J	SW TACT SOR-123HS T05
TS807	ES-394818J	SW TACT SOR-123HS T05
TS808	ES-394818J	SW TACT SOR-123HS T05
TS809	ES-394818J	SW TACT SOR-123HS T05
TS810	ES-394818J	SW TACT SOR-123HS T05
TS811	ES-394818J	SW TACT SOR-123HS T05
TS812	ES-394818J	SW TACT SOR-123HS T05

## 8. FILTER & SP TERMINAL P.C BOARD

Ref.No.	Part No.	Description
D25	ED-307572	D SILICON H 1SS131 [U]
D27	ED-307572	D SILICON H 1SS131 [U]
F10	*EF-355398	FUSE BET T 250V 2.00A [U]
F11	*EF-355398	FUSE BET T 250V 2.00A [U]
FL1	*EO-376998J	COIL LF LF-2C17-02
RL1	*EQ-394450J	RELAY POW DG12D1-O(M) 12V [U]
TM1	EJ-394713J	TERMINAL *C1026-2 8P
TM2	*EJ-394711J	SOCKET OUT M7039-A 1P [U]

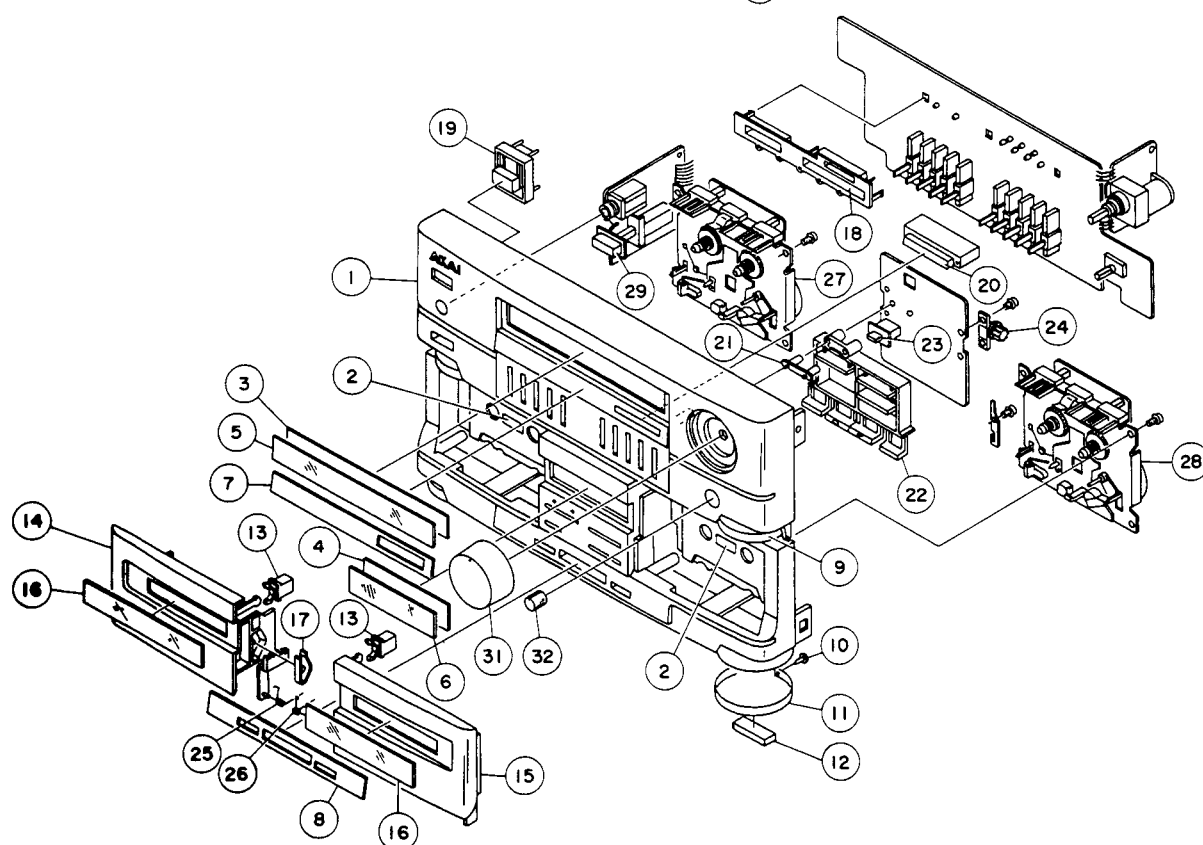
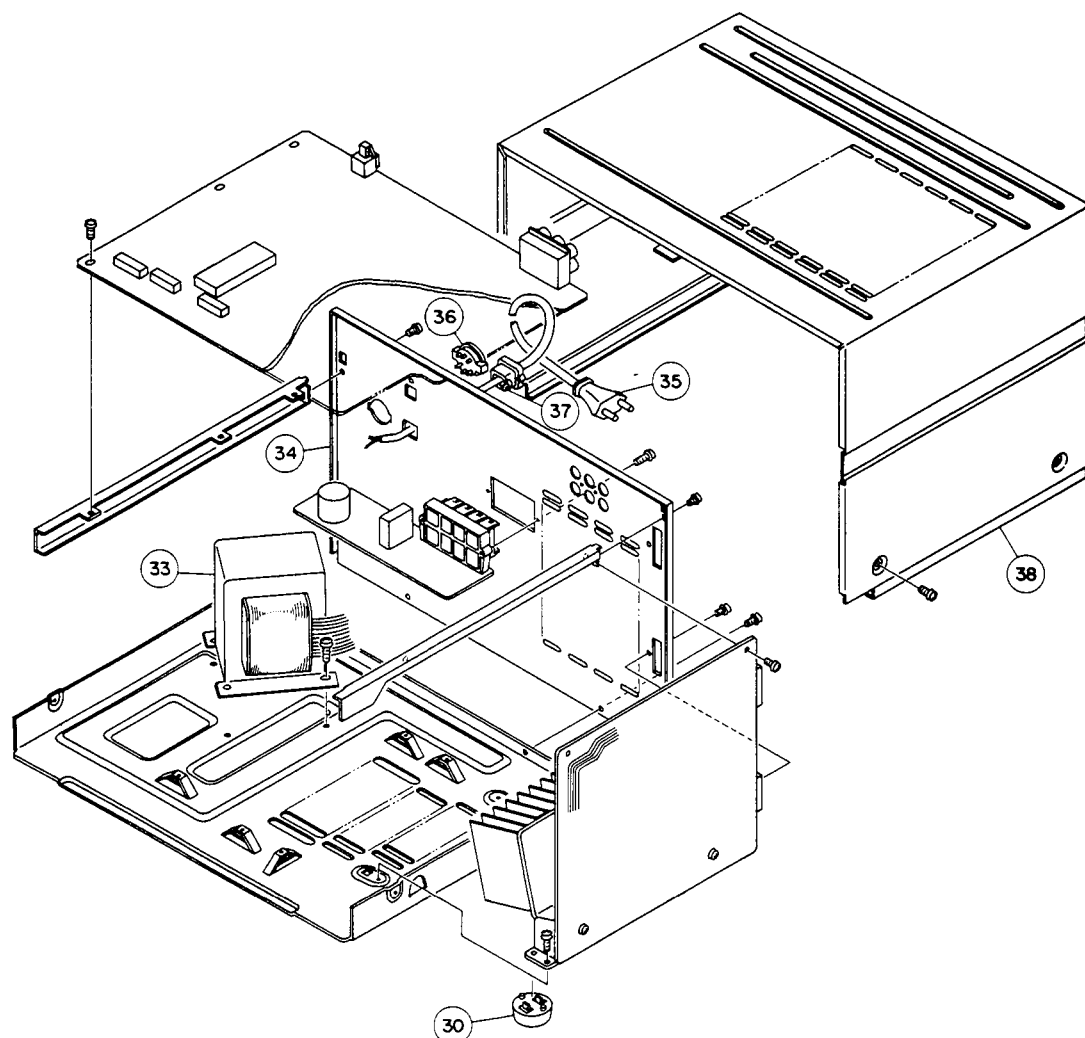
## 9. HEADPHONE P.C BOARD

Ref.No.	Part No.	Description
J1	EJ-394455J	PHONE J 3P YKB21-5006 6.3
SW1	ES-394914J	SW PUSH SPUL12 4-M3.2 2-04-02S [SURROUND SW]

## 10. MAIN VR P.C BOARD

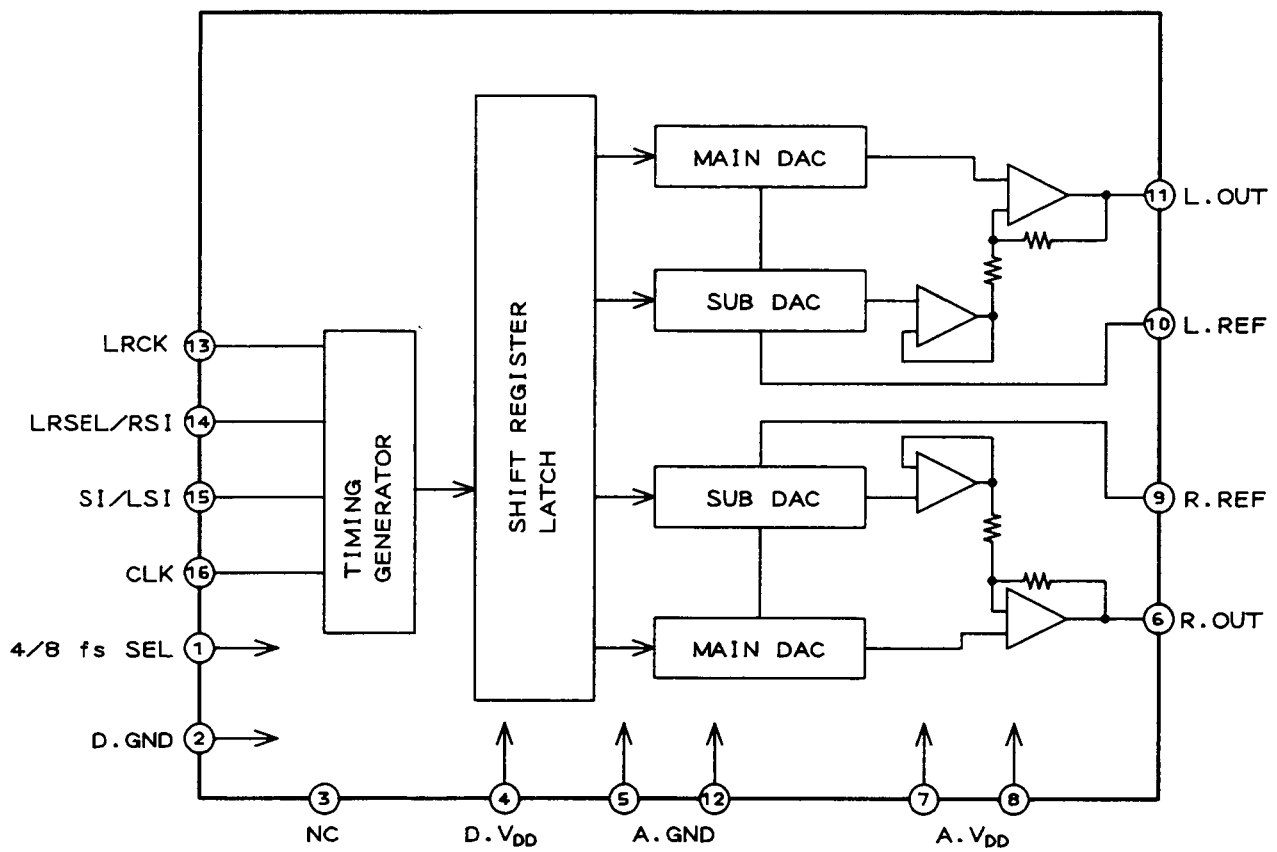
Ref.No.	Part No.	Description
TR14	ET-353899	TR 2SA1317 S,T,U
TR15	ET-353899	TR 2SA1317 S,T,U
TR16	ET-397160J	TR 2SC3330 R,S,T,U,V
TR17	ET-397160J	TR 2SC3330 R,S,T,U,V
VR12	EV-394458J	VR SPL RK16Y12MA A104X2

# FINAL ASSEMBLY



## PARTS LIST

μPD6376CX (16 BIT D/A CONVERTOR)



μPD75108CN (SYSTEM CONTROL MI-CON)

PIN NO.	PORT NAME	I/O	ACTIVE	DESCRIPTION
1	SLIT-2	IN	L	TAPE 2 Reel pulse input.
2	SLIT-1	IN	L	TAPE 1 Reel pulse input.
3	XBUSI-D	IN	L	DATA in put (TUNER/CD).
4	XBUSI-C	IN	L	CLOCK in put (TUNER/CD).
5	BOP	IN	L	Sound detection input. L: No sound
6	PLL-ER	IN	H	PLL Error input. H: Error
7	PLY SW2	IN	L	TAPE 2 Play switch input. L: Play. FF. Rew.
8	PLY SW1	IN	L	TAPE 1 Play switch input. L: Play. FF. Rew.
9	ARECSW	IN	L	TAPE 2 Fwd anti-rec switch input.
10	TEST-S	IN	L	Test mode selection terminal.
11	XEXPO-3	OUT	L	Select output A for LC7800 input expander.
12	XEXPO-2	OUT	L	Select output B for LC7800 input expander.
13	XEXPO-1	OUT	L	Select output C for LC7800 input expander.
14	XEXPO-0	OUT	L	Select output D for LC7800 input expander.
15	XEXPI-3	IN	L	Data input 0 for LC7800 input expander.
16	XEXPI-2	IN	L	Data input 1 for LC7800 input expander.
17	XEXPI-1	IN	L	Data input 2 for LC7800 input expander.
18	XEXPI-0	IN	L	Data input 3 for LC7800 input expander.
19	FUNC-LA	OUT	L	Output for LED AUX indicator.
20	FUNC-LC	OUT	L	Output for LED CD indicator.
21	FUNC-LTP	OUT	L	Output for LED TAPE indicator.
22	FUNC-LTU	OUT	L	Output for LED TUNER indicator.
23	FUNC-LP	OUT	L	Output for LED PHONO indicator.
24	DUBX1-L	OUT	L	Output for LED X1 indicator.
25	DUBX2-L	OUT	L	Output for LED X2 indicator.
26	PLAY1-L	OUT	L	Output for LED PLAY indicator.
27	EDIT-L	OUT	L	Output for LED EDIT indicator.
28	REC-L	OUT	L	Output for LED REC indicator.
29	PLAY2-L	OUT	L	Output for LED PLAY indicator.
30	TAPE2-L	OUT	L	Output for TAPE 2 indicator.
31	NC			
32	VDD			+5 V
33	OSC	OUT	H	Bias OSC control. H: OSC ON.
34	CRD-DW	OUT	H	Cross down.
35	VOL-DW	OUT	L	To move main volume down.
36	VOL-UP	OUT	L	To move main volume up.
37	RMUT	OUT	H	TAPE 2 Rec mute.
38	FUNC-C	OUT	H	Select output C for function switching by annalog switch.
39	FUNC-B	OUT	H	Select output B for function switching by annalog switch.
40	FUNC-A	OUT	H	Select output A for function switching by annalog switch.
41	PMUT	OUT	H	For muting amp output. H: mute on
42	X2 PB70	OUT	L	For switching playback EQ. L: X2 speed (70 μs)
43	X1 PB70	OUT	L	For switching playback EQ. L: Normal speed (70 μs) X2 speed (120 μs)
44	PB 12	OUT		For switching playback between TAPE 1/2. H: TAPE 1 Playback
45	RESET	IN	L	Reset input.
46	X.Tal			X'tal OSC
47	X.Tal			X'tal OSC
48	RPB	OUT	L	For switching between REC and PB (TAPE 2).
49	CRO-UP	OUT	H	Cross up.
50	VCOINH	OUT	H	To stop digital I/O PLL when tuner is selected. H: STOP
51	PLNG-1	OUT	H	TAPE 1 Plunger output.
52	CAP-1	OUT	L	For switching capstain speed (TAPE 2). L: X2 speed
53	CAP-2	OUT	L	For switching capstain speed (TAPE 1). L: X2 speed
54	PLNG-2	OUT	L	Plunger output (TAPE 2).
55	PLNG-1	OUT	L	Plunger output (TAPE 1).
56	XBUSO-D	OUT	H	DATA output (TUNER/CD).
57	XBUSO-C	OUT	H	CLOCK output (TUNER/CD).
58	STB	OUT		To turn power off for unnecessary parts during standby. L: Power on. H: Power standby.
59	TAPE1-L	OUT	L	Output for LED TAPE 1 indicator.
60	OPT-L4	OUT	L	Output for LED OPTICAL link 1 indicator.
61	OPT-L3	OUT	L	Output for LED OPTICAL link 2 indicator.
62	OPT-L2	OUT	L	Output for LED OPTICAL link 3 indicator.
63	OPT-L1	OUT	L	Output for LED OPTICAL link 4 indicator.
64	Vss			GND

# AKAI

## MODEL **AX-M400**

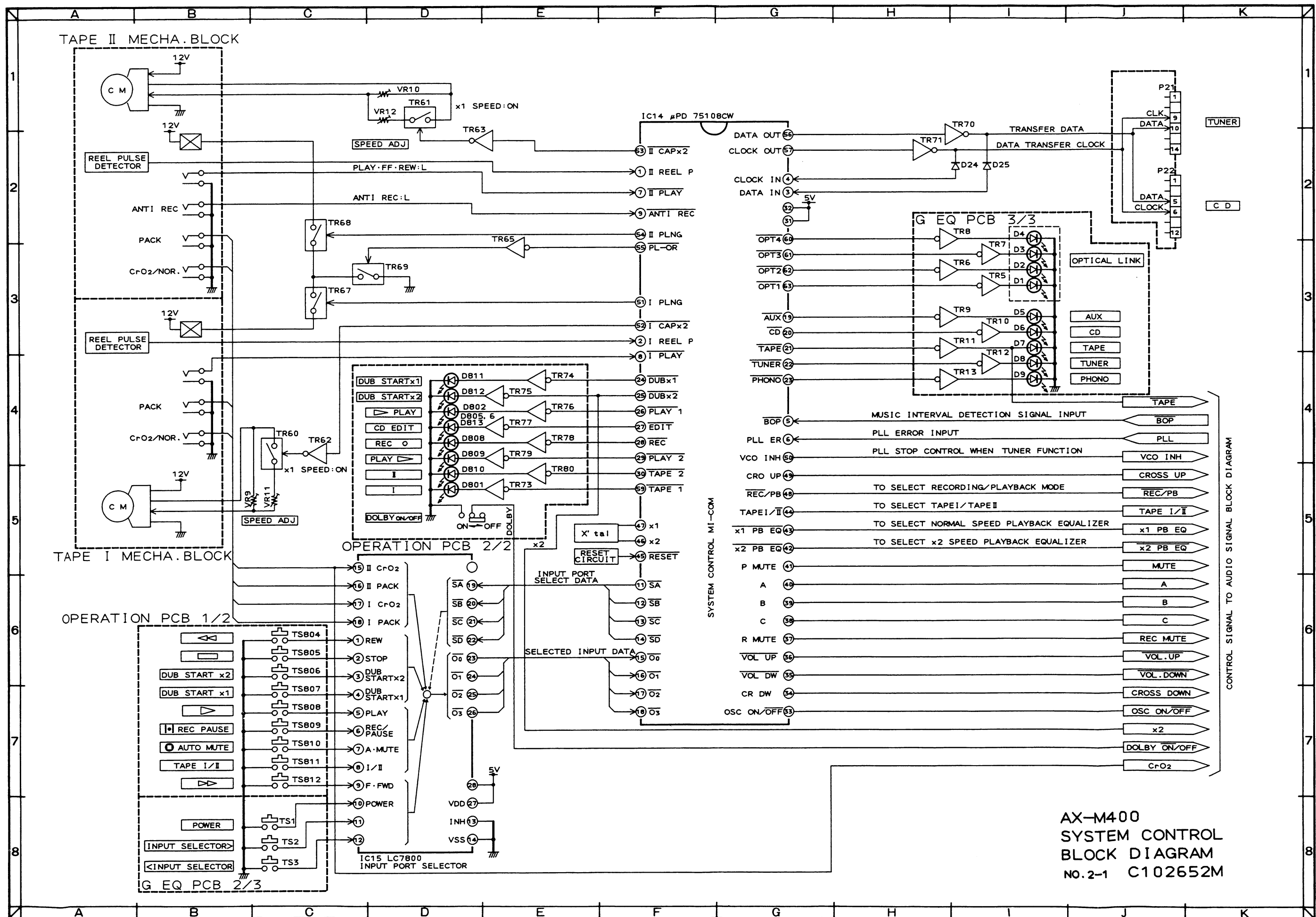
### **SCHEMATIC DIAGRAMS AND PC BOARDS**

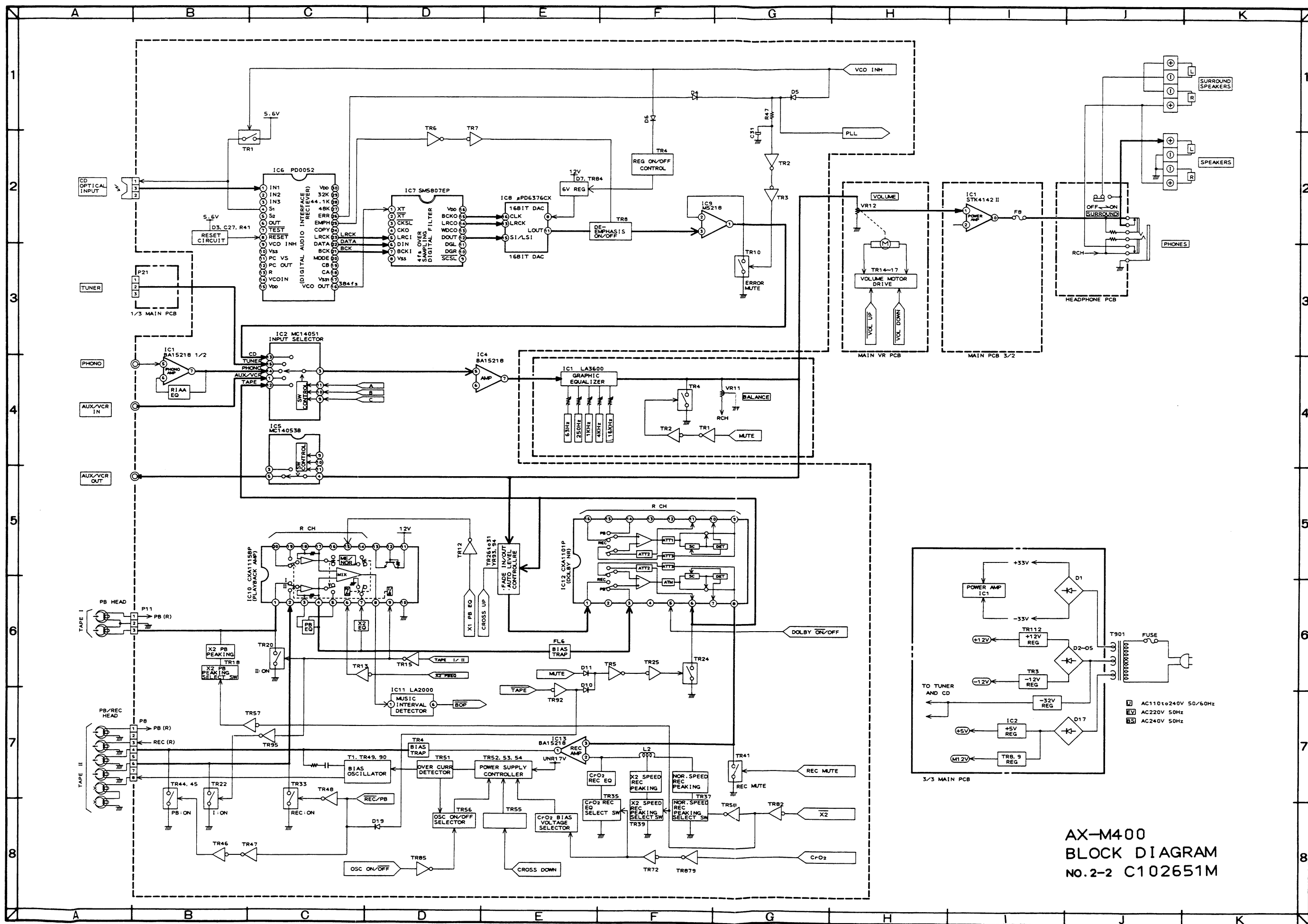
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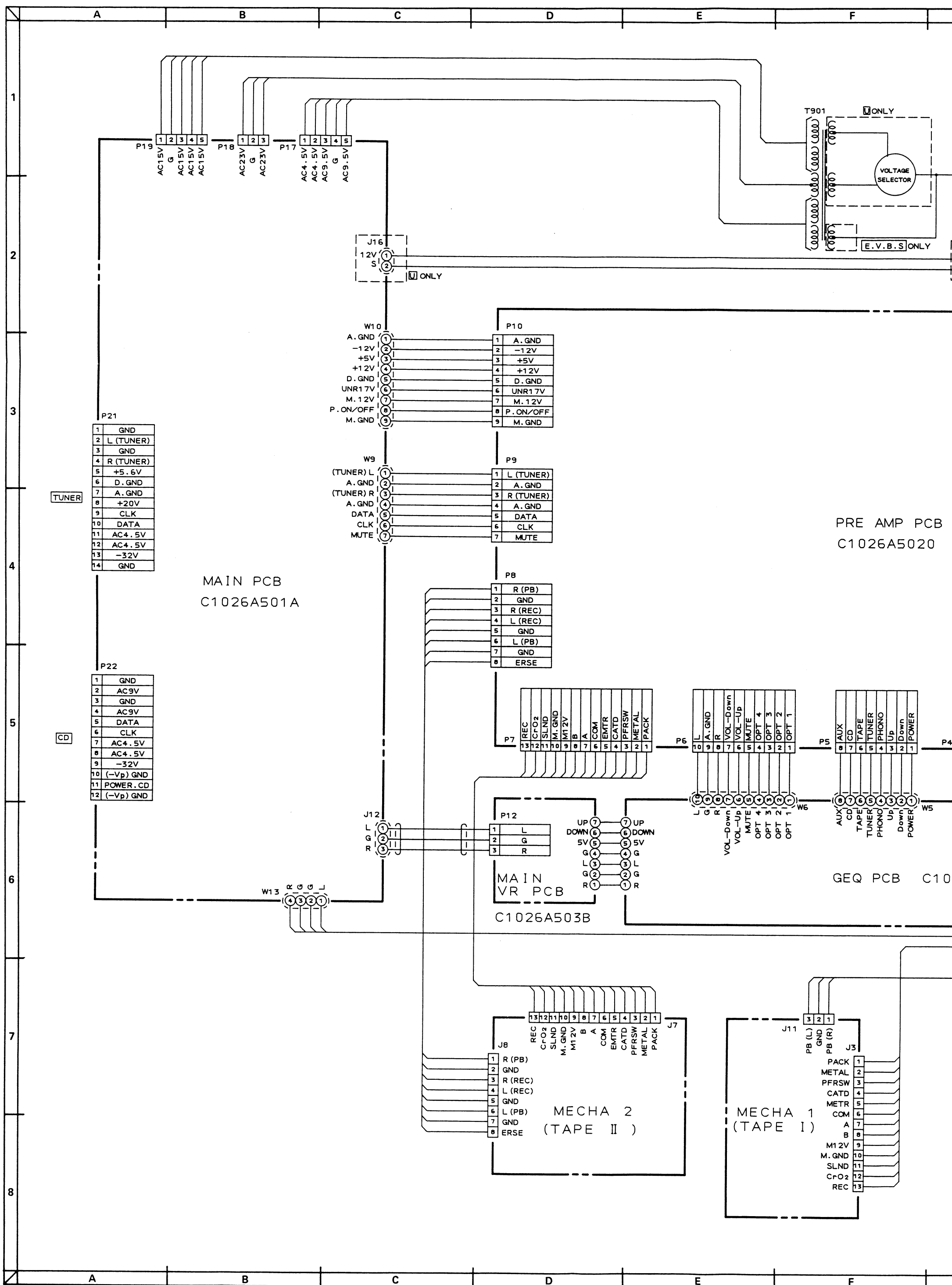


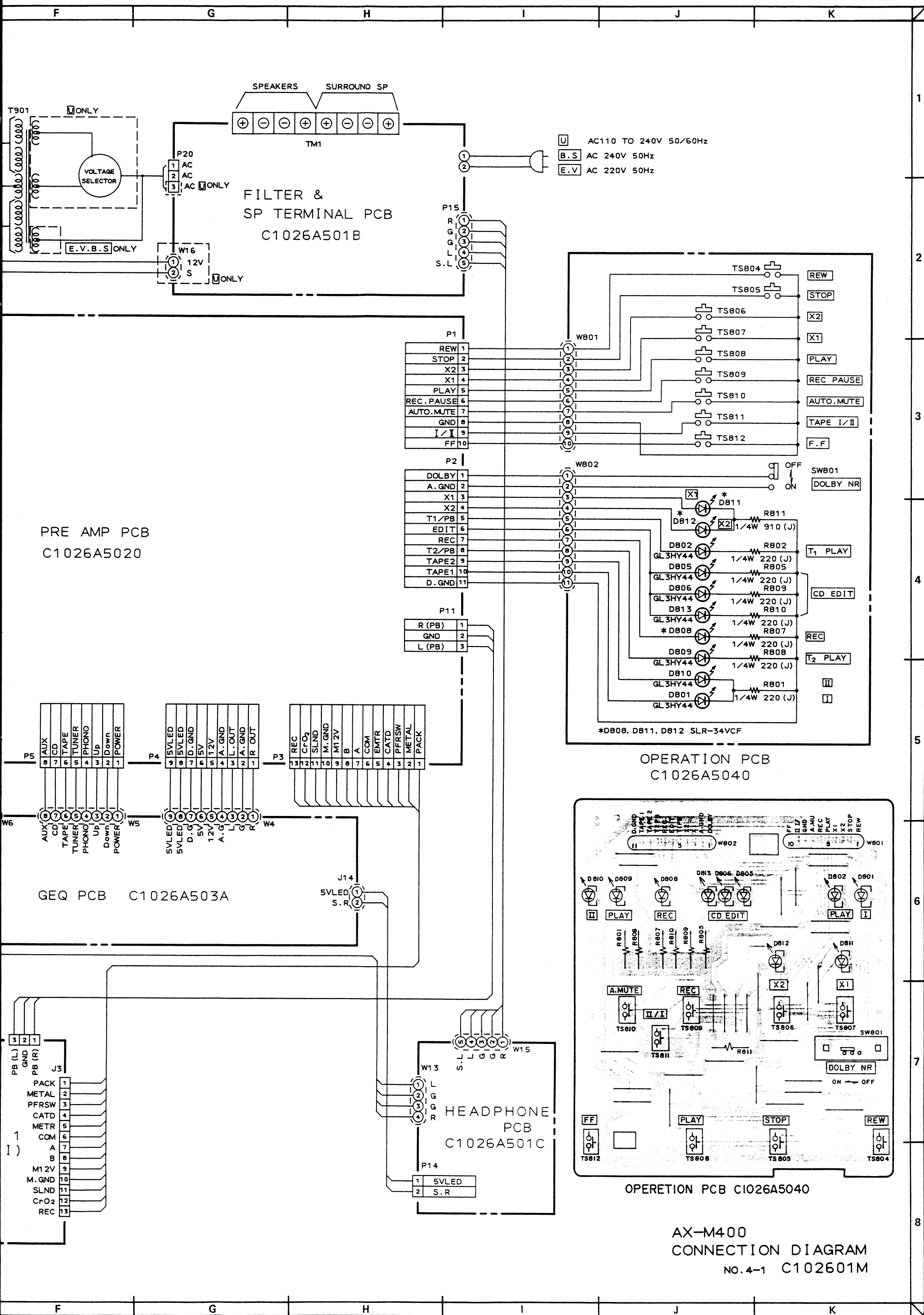


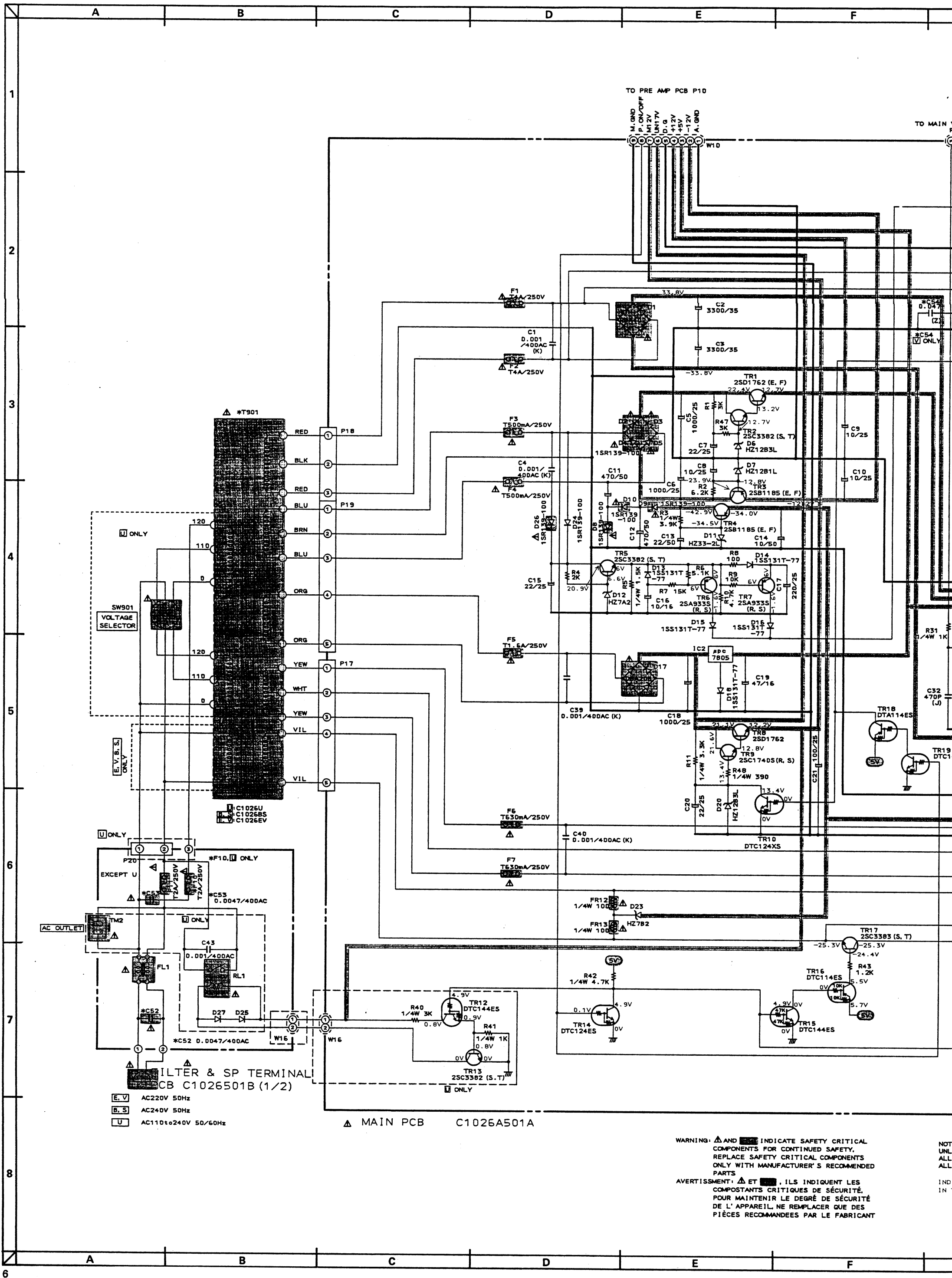


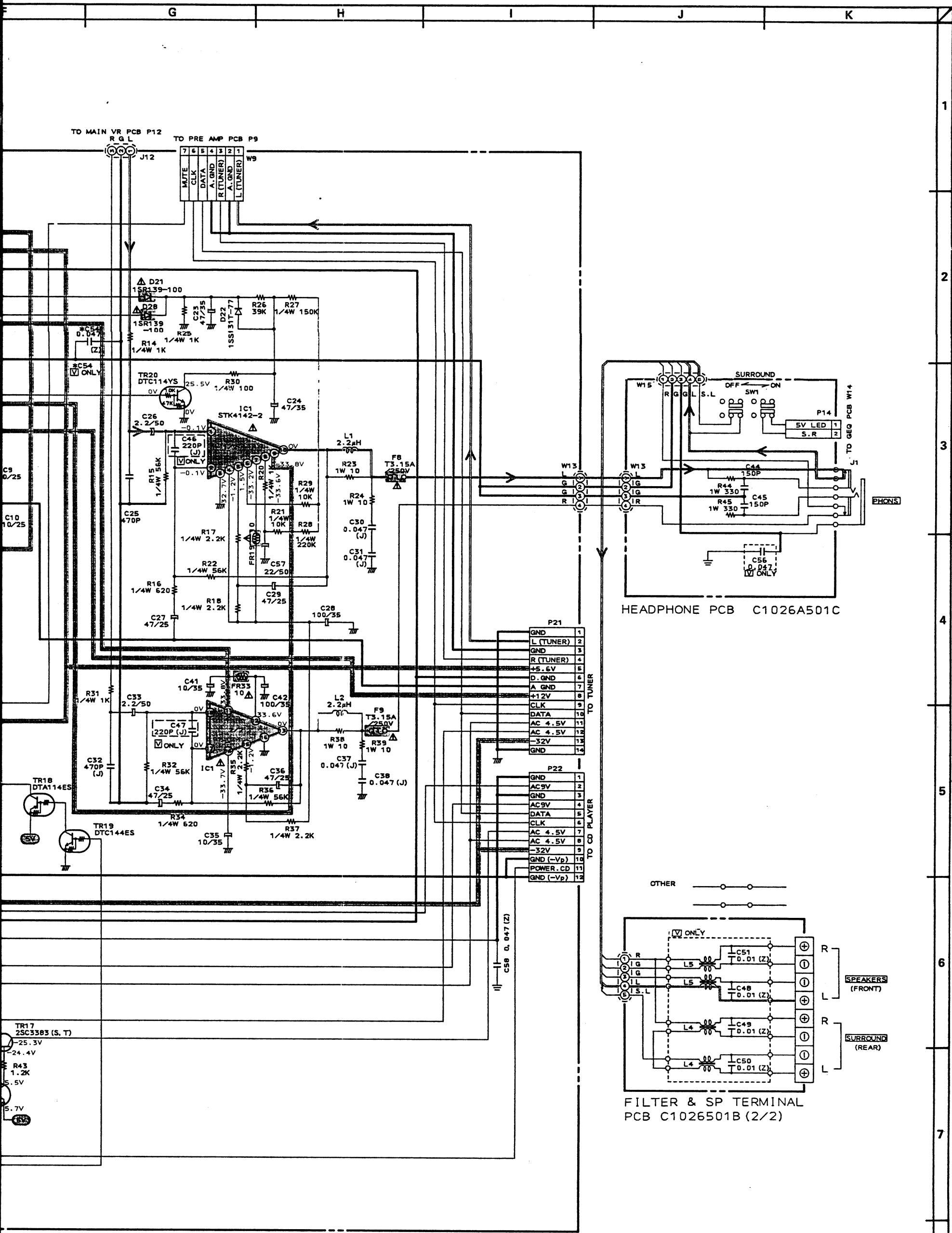


AX-M400  
BLOCK DIAGRAM  
No.2-2 C102651M









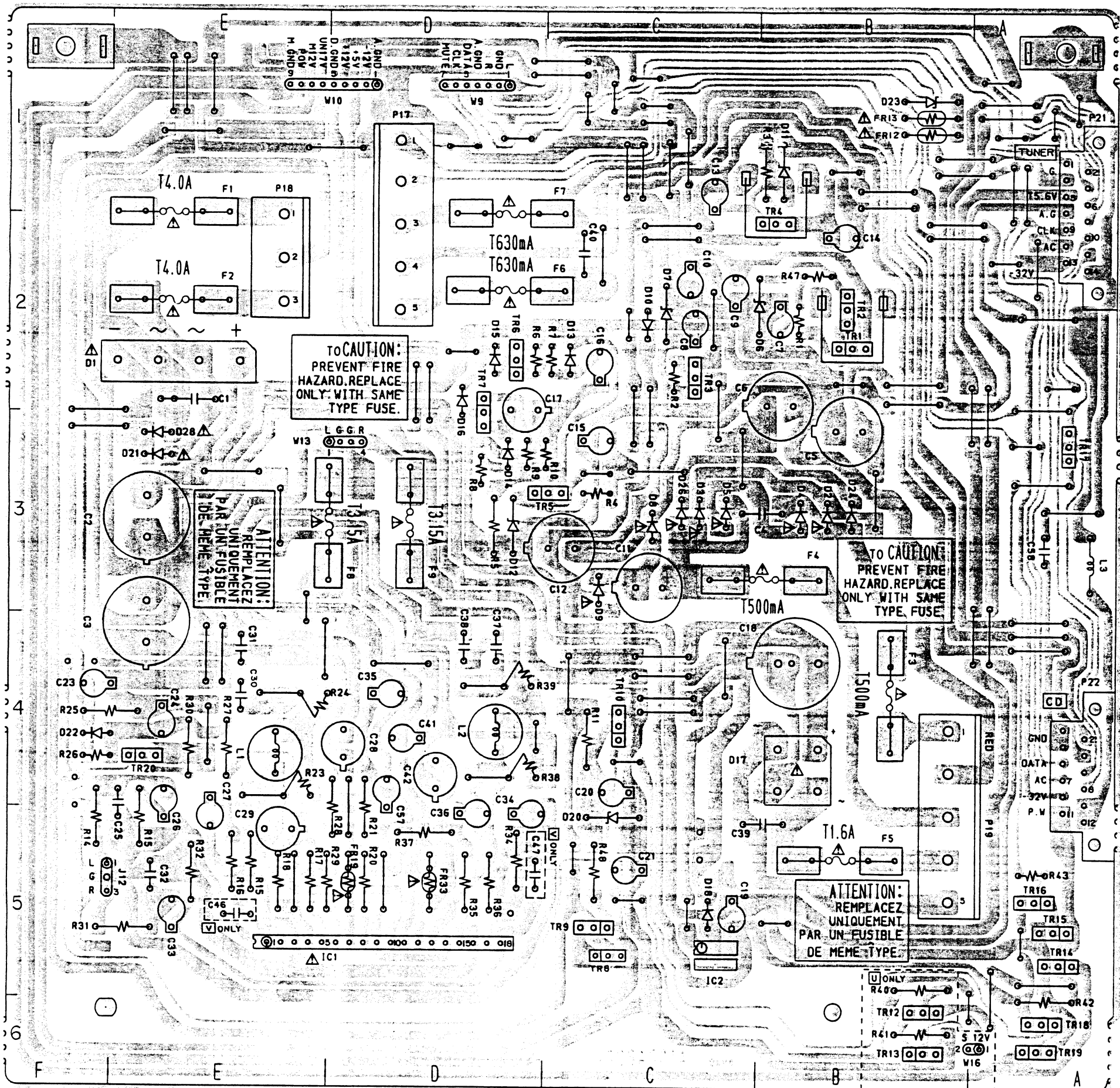
NOTE  
UNLESS OTHERWISE SPECIFIED  
ALL RESISTORS IN OHMS 1/6W(J)  
ALL CAPACITORS IN  $\mu$ F 50WV(M)

INDICATED VOLTAGES ARE MEASURED  
IN TUNING MODE.

— :B (POWER SUPPLY) LINE  
— :SIGNAL LINE

AX-M400  
MAIN  
SCHEMATIC DIAGRAM  
No.4-2 C102602M





MAIN PCB CI026A50IA

# PRINCIPAL PARTS LIST

## TRANSISTORS

TR1.....B
TR2.....B
TR3.....C
TR4.....B
TR5.....C
TR6.....D
TR7.....C
TR9.....C
TR10.....C
TR12.....B
TR13.....B
TR14.....A
TR15.....A
TR16.....A
TR17.....A
TR18.....A
TR19.....A
TR20.....E

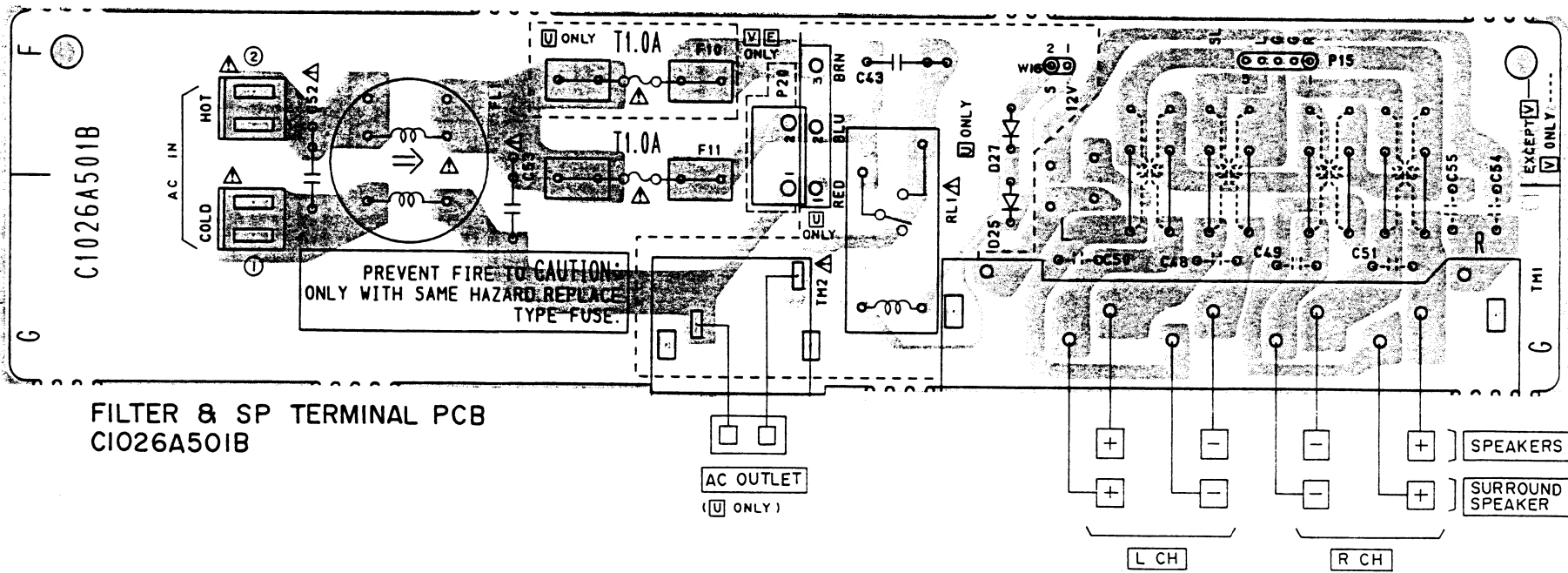
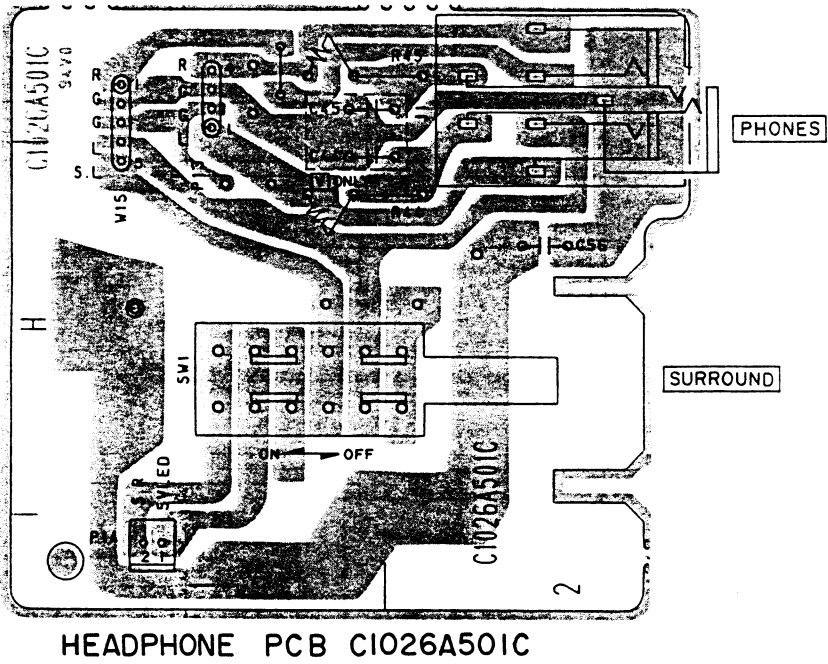
CI026A50IB

WARNING:  $\Delta$  INDICATES SAFETY CRITICAL COMPONENTS. REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH RECOMMENDED PARTS.

AVERTISSEMENT:  $\Delta$  IL INDIQUE LES COMPOSANTS CRITIQUES. POUR MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL, NE REMPLACER QUE DES PIÈCES RECOMMANDÉES.

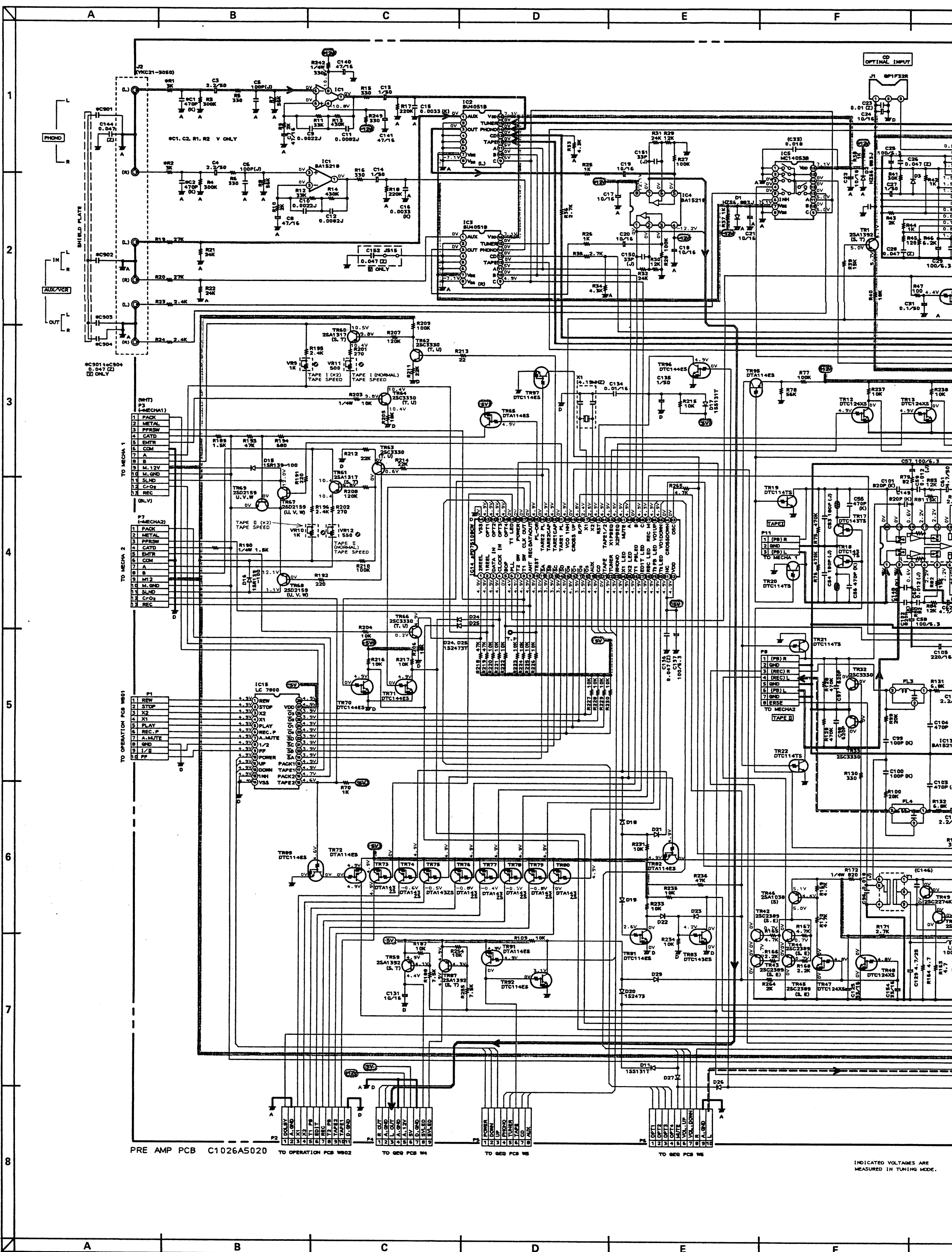
PRINCIPAL PARTS LOCATION

TRANSISTORS	CONNECTORS
TR1.....B2	J12.....F5
TR2.....B2	P17.....D1,2
TR3.....C2	P18.....E2
TR4.....B2	P19.....B5
TR5.....C,D3	P21.....A1,2
TR6.....D2,3	P22.....A5
TR7.....C5	W9.....D1
TR9.....C5	W10.....E1
TR10.....C4	W13.....D3
TR12.....B6	W16.....A6
TR13.....B6	
TR14.....A5	
TR15.....A5	
TR16.....A5	
TR17.....A3	
TR18.....A6	
TR19.....A6	
TR20.....E4	



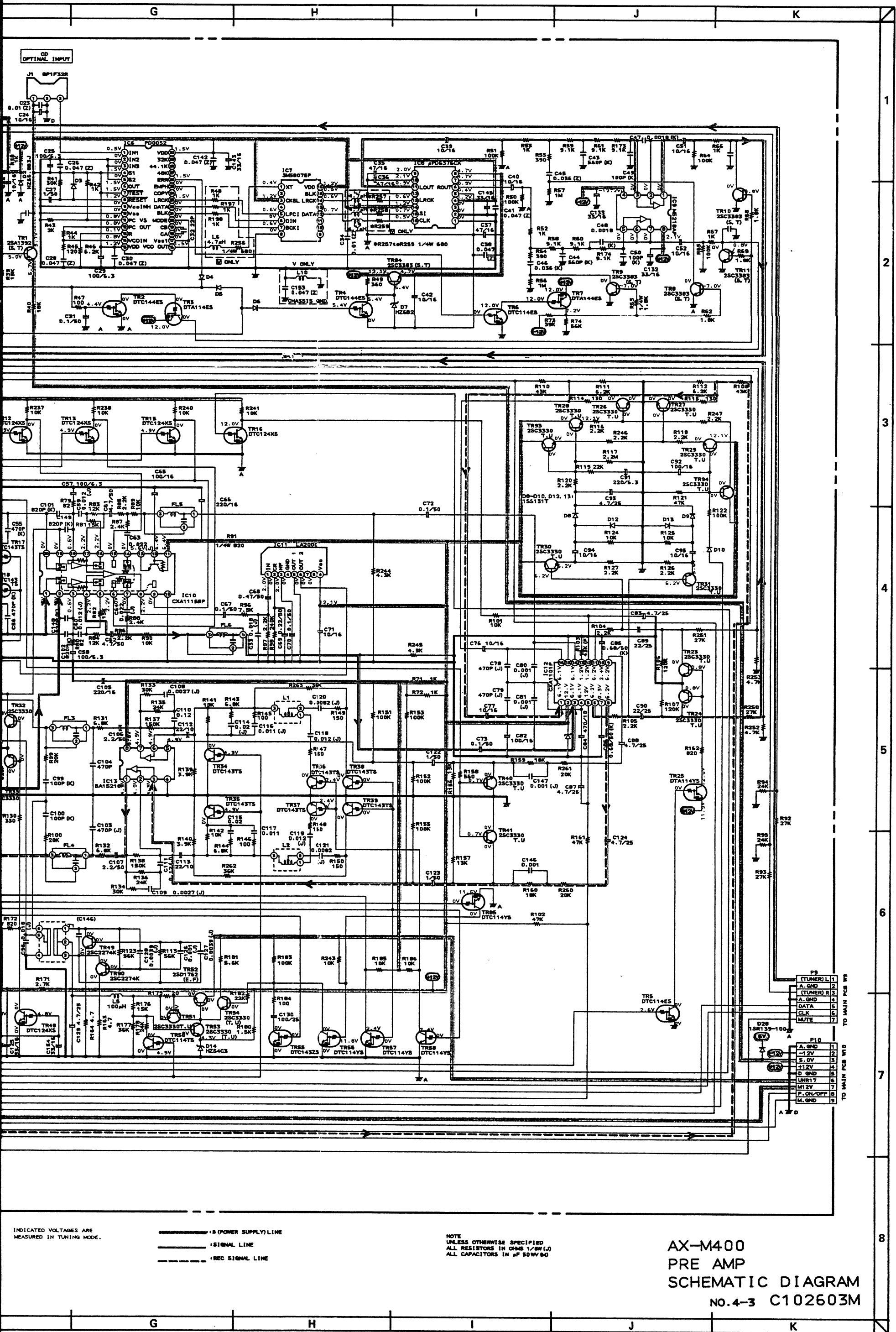
INDICATES SAFETY CRITICAL COMPONENTS. FOR CONTINUED SAFETY, REPLACE SAFETY CRITICAL COMPONENTS ONLY WITH MANUFACTURER'S RECOMMENDED PARTS.  
INDIQUE LES COMPOSANTS CRITIQUES DE SÉCURITÉ. MAINTENIR LE DEGRÉ DE SÉCURITÉ DE L'APPAREIL. REMPLACER QUE DES PIÈCES RECOMMANDÉES PAR LE FABRICANT



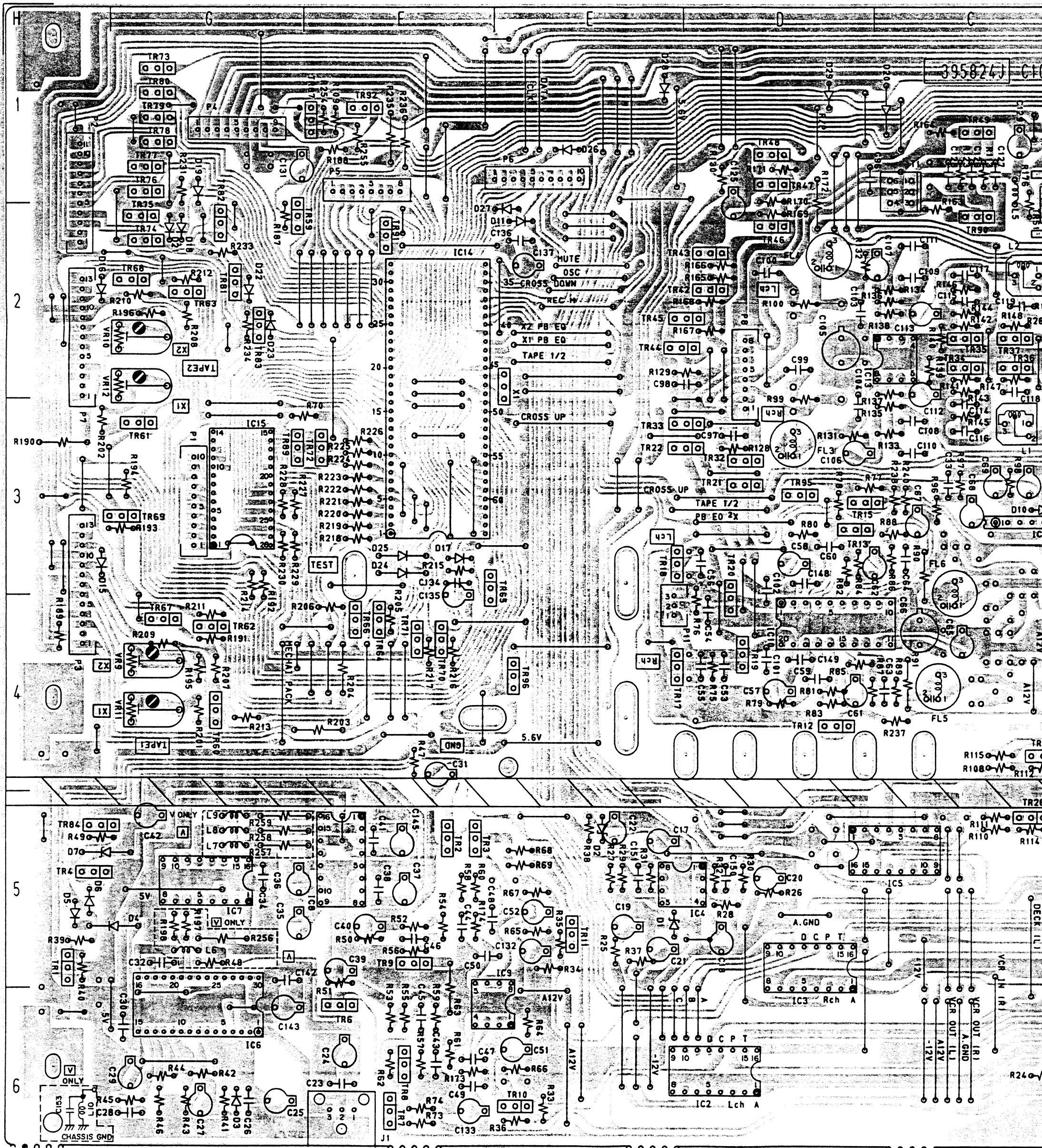


PRE AMP PCB C1026A5020

INDICATED VOLTAGES ARE MEASURED IN TUNING MODE.

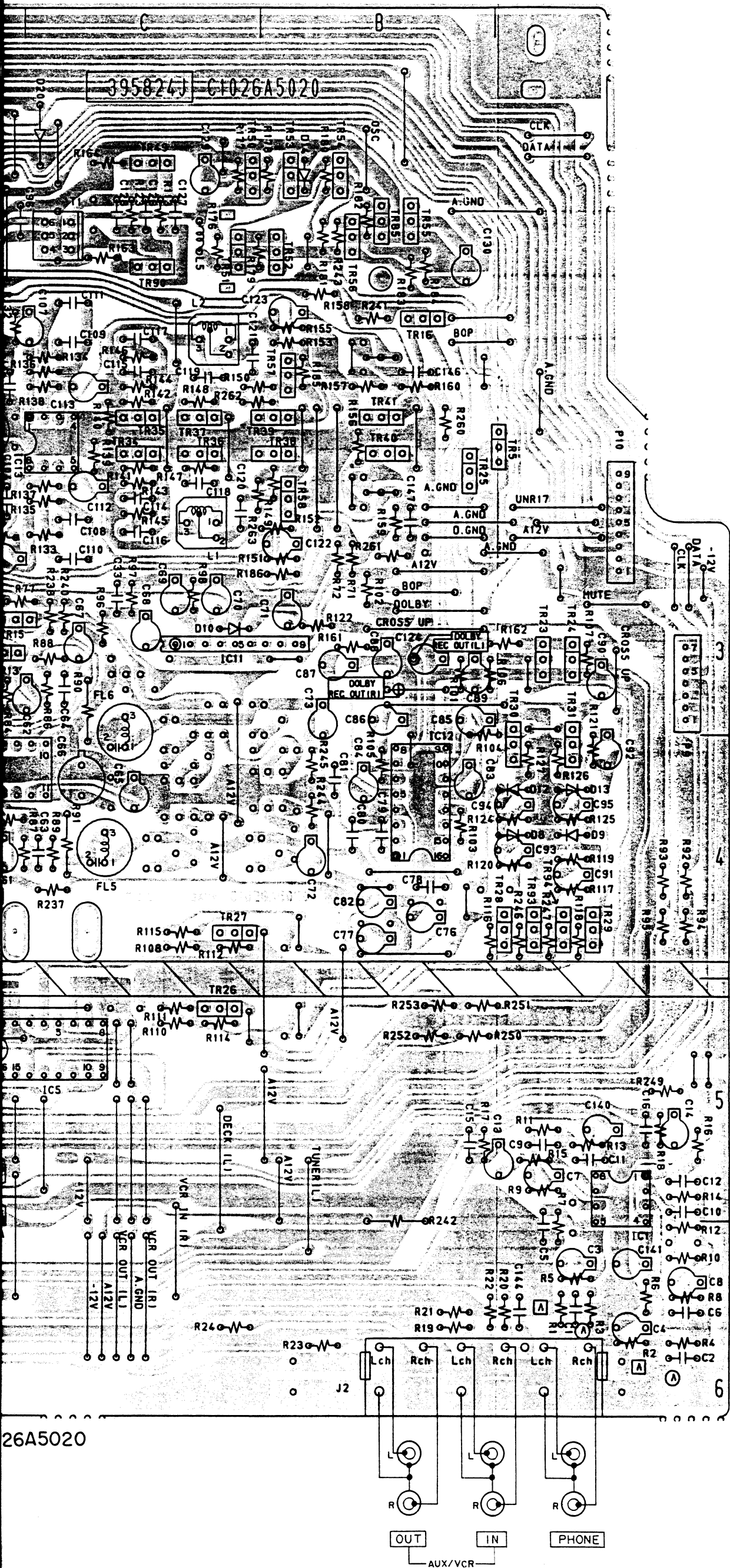






CD OPTICAL INPUT

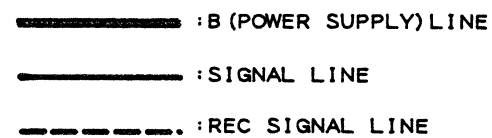
PRE AMP PCB C1026A5020

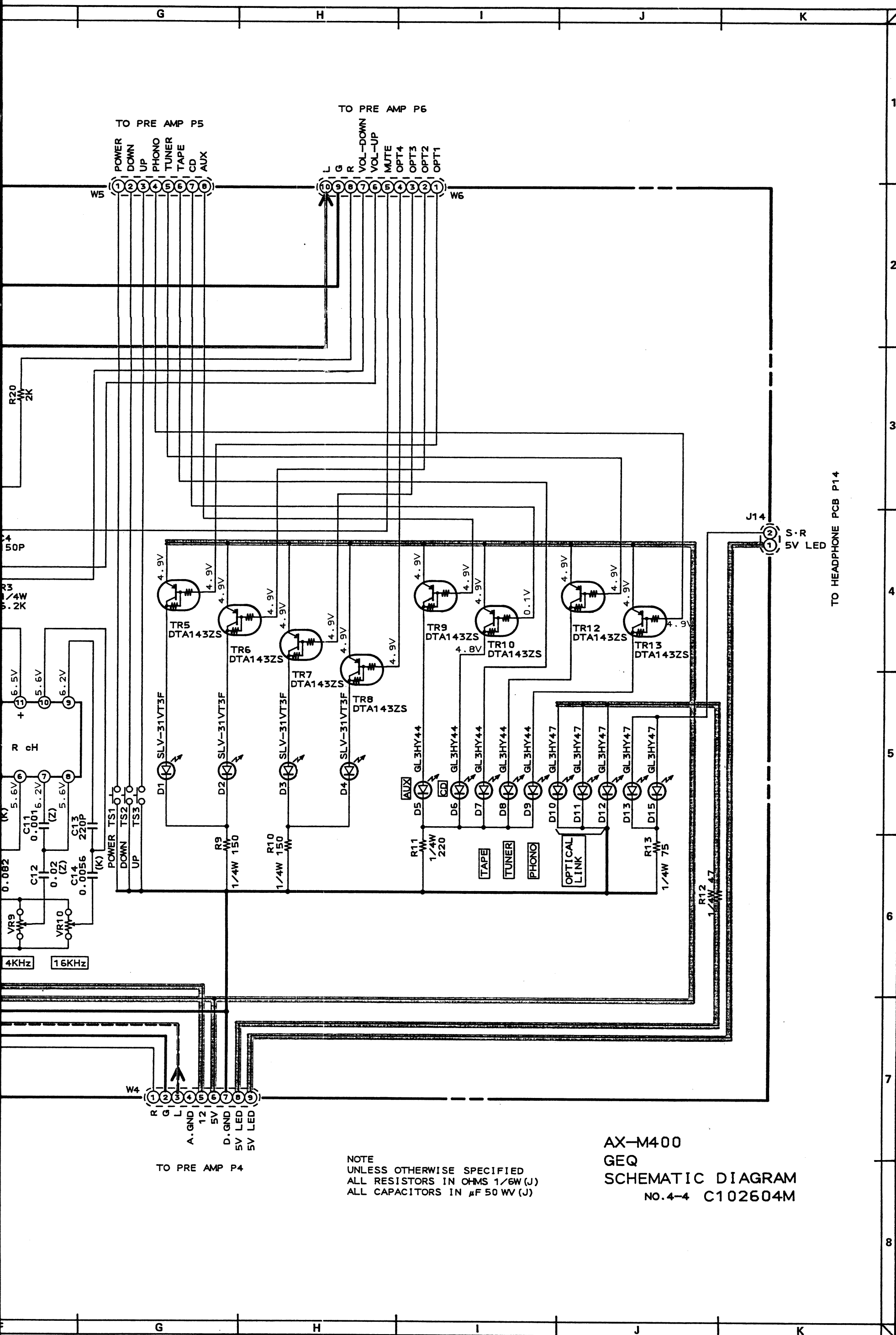


# PRINCIPAL PARTS LOCATION

ICS	TRANSISTORS	
IC1.....A5	TR1.....H5	TR48.....D1
IC2.....D6	TR2.....F5	TR49.....C1
IC3.....D5	TR3.....F5	TR50.....C1
IC4.....E5	TR4.....H5	TR51.....C1
IC5.....C5	TR5.....A2	TR52.....B1
IC6.....G6	TR6.....F6	TR53.....B1
IC7.....G5	TR7.....F6	TR54.....B1
IC8.....F5	TR8.....F6	TR55.....B1
IC9.....F6	TR9.....F5	TR56.....B1
IC10.....D4	TR10.....E6	TR57.....B2
IC11.....C3	TR11.....E5	TR58.....B3
IC12.....B4	TR12.....D4	TR59.....G2
IC13.....C2	TR13.....D3	TR60.....G4
IC14.....F2	TR15.....D3	TR61.....G3
IC15.....G3	TR16.....B2	TR62.....G4
	TR17.....E4	TR63.....G2
CONNECTORS	TR18.....E3	TR64.....F4
J1.....F6	TR19.....D4	TR65.....F3
J2.....B6	TR20.....D3	TR66.....F4
P1.....G3	TR21.....D3	TR67.....G4
P2.....H1	TR22.....E3	TR68.....G2
P3.....H3	TR23.....A3	TR69.....G3
P4.....G1	TR24.....A3	TR70.....F4
P5.....F1	TR25.....B2	TR71.....F4
P6.....E1	TR26.....C5	TR72.....F3
P7.....H2	TR27.....C4	TR73.....G1
P8.....D2	TR28.....A4	TR74.....G2
P9.....A3	TR29.....A4	TR75.....G2
P10.....A2	TR30.....A3	TR76.....G1
P11.....E3	TR31.....A3	TR77.....G1
	TR32.....D3	TR78.....G1
	TR33.....E3	TR79.....G1
	TR34.....C2	TR80.....G1
	TR35.....C2	TR81.....G2
	TR36.....C2	TR82.....G2
	TR37.....C2	TR83.....G2
	TR38.....B2	TR84.....H5
	TR39.....B2	TR85.....B1
	TR40.....B2	TR87.....F1
	TR41.....B2	TR89.....G3
	TR42.....D2	TR91.....F2
	TR43.....D2	TR92.....F1
	TR44.....E2	TR93.....A4
	TR45.....E2	TR94.....A4
	TR46.....D2	TR95.....D3
	TR47.....D1	TR96.....E4





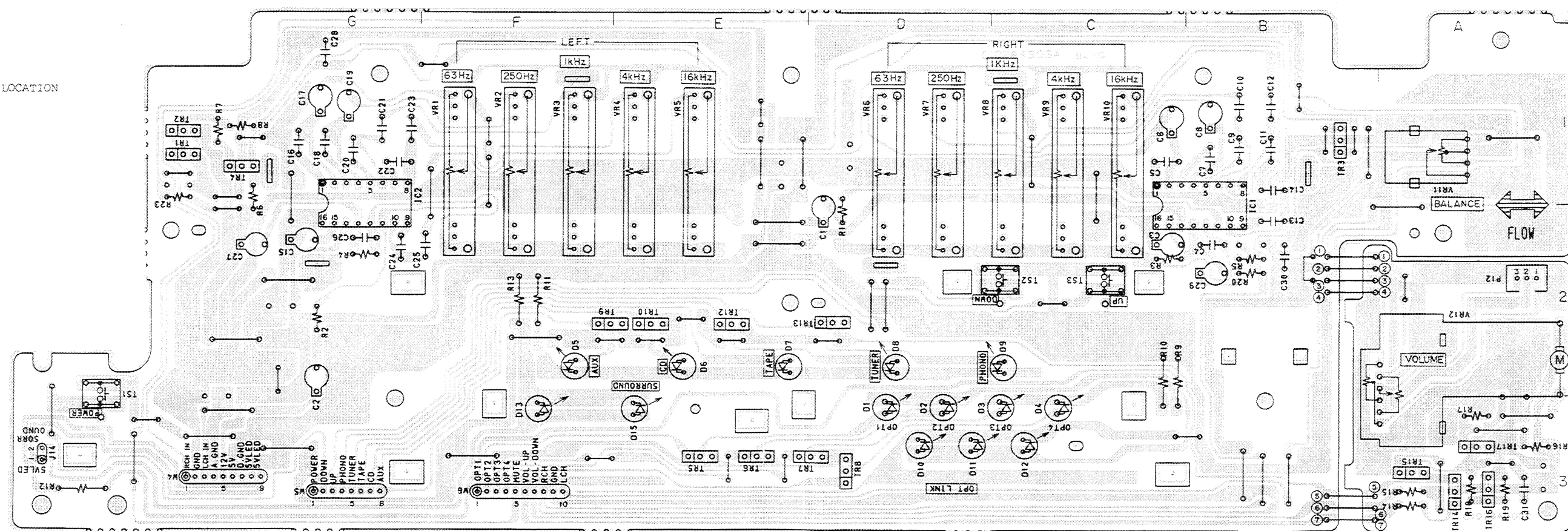


# PRINCIPAL PARTS LOCATION

ICS  
IC1.....B1  
IC2.....G2

CONNECTORS  
J14.....H3  
W4.....H3  
W5.....G3  
W6.....F3

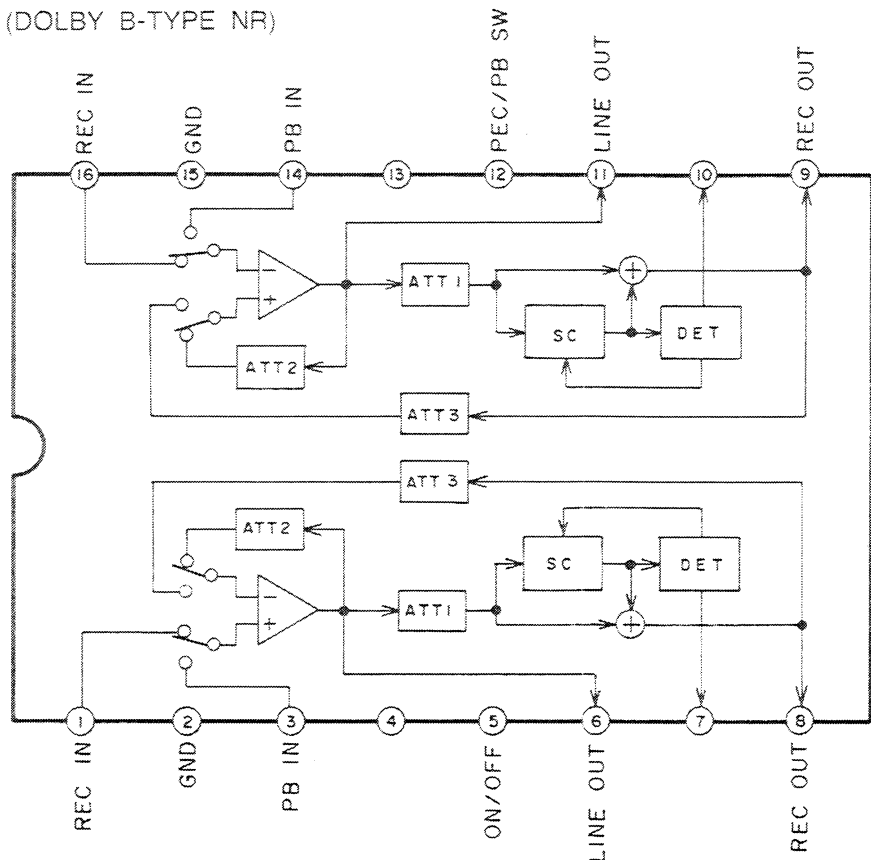
TRANSISTORS  
TR1.....G1  
TR2.....G1  
TR3.....B1  
TR4.....G1  
TR5.....E3  
TR6.....E3  
TR7.....D3  
TR8.....D3  
TR9.....F2  
TR10.....E2  
TR12.....E2  
TR13.....D2  
TR14.....A3  
TR15.....A3  
TR16.....A3  
TR17.....A3



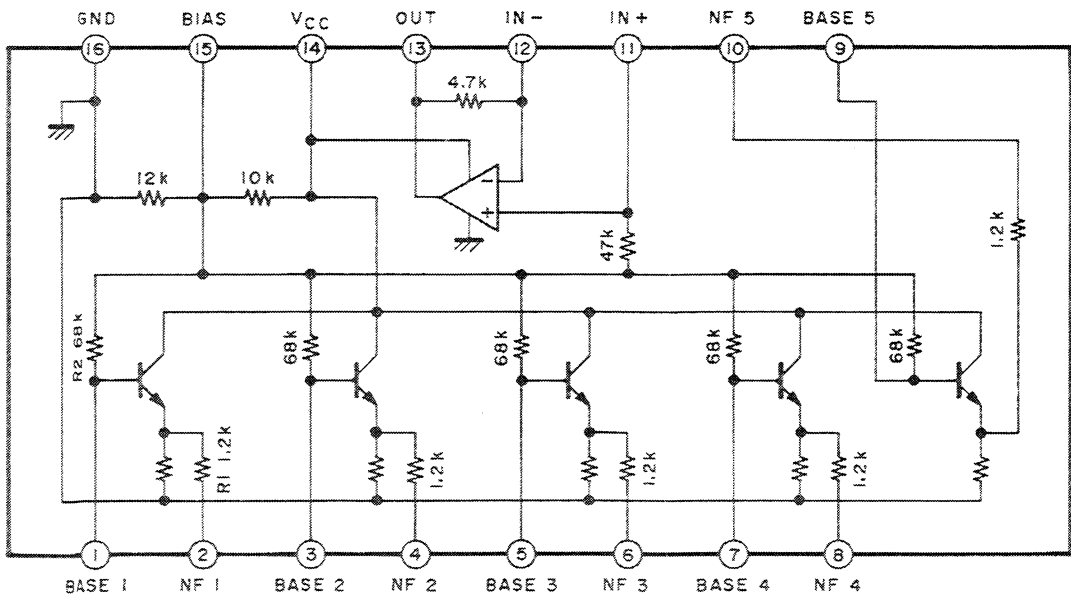
GEQ PCB C1026A503A

MAIN VR PCB  
C1026A503B

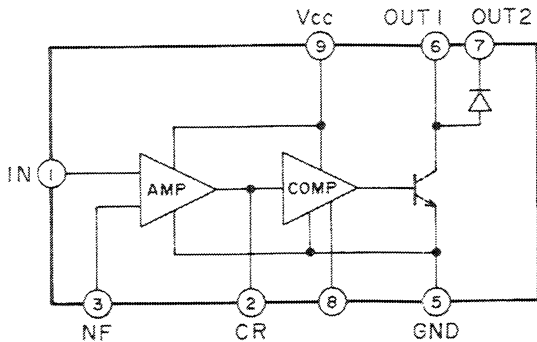
CAX1101P (DOLBY B-TYPE NR)



LA2000 (AUDIO LEVEL SENSOR)



LA3600 (5BAND GRAPHIC EQUALIZER)



PD0052 (DIGITAL AUDIO INTERFACE RECEIVER)

PIN NO.	SYMBOL	I/O	DESCRIPTION
1	IN 1	I	Digital Audio Interface signal input.
2	IN 2	I	
3	IN 3	I	
4	S 1	I	Input select 1.
5	S 2	I	Input select 2.
6	OUT	O	Data output.
7	TEST	I	TEST MODE input.
8	RESET	I	Power "ON" Reset input.
9	VCOINH	I	VCO OSC Stop Control signal input.
10	VSS	-	GND
11	PCVS	I	External Resistor Connection Terminal for VCO.
12	PC OUT	O	Phase comparator output.
13	R	-	External Resistor Connection Terminal for VCO.
14	VCO IN	I	Control voltage input.
15	VDD 1	-	+B (+5 V)
16	VCO OUT	O	VCO Output (384 fs)
17	VSS 1	-	GND
18	CA	-	External Capacitor Connection Terminal for VCO.
19	CB	-	
20	MODE	-	GND
21	BCK	O	Bit clock output.
22	DATA	O	Data output.
23	LRCK	O	Data output. (H=L ch, L=R ch)
24	COPY	O	Copy inhibit information output.
25	EMPH	O	H: EMPHASIS
26	ERR	O	H: Parity Error, L= NO ERROR
27	48 K	O	Sampling Frequency data output. L=active
28	44.1 K	O	
29	32 K	O	
30	VDD	-	+B (+5 V)

SM5807EP (4 FS OVER SAMPLING FILTER)

PIN NO.	SYMBOL	I/O	DESCRIPTION
1	XT	I	X'tal OSC input.
2	XT	O	X'tal OSC output.
3	CKSL	I	H: 16.9344 MHz L: 8.4672 MHz
4	CKO	O	Clock output.
5	LRCI	I	Clock input.
6	D IN	I	Serial data input.
7	B CKI	I	Bit clock input.
8	VSS	-	GND
9	SCSL	I	H: 192 fs L: 196 fs
10	DGR	O	R ch signal output.
11	DGL	O	L ch signal output.
12	D OUT	O	Serial data output.
13	WDCO	O	Control clock output. (352.8 kHz)
14	LRCO	O	Control clock output. (176.4 kHz)
15	BCKO	O	Bit clock output.
16	VDD	-	+B (+5 V)



## ABBREVIATIONS (CASSETTE)

ABBREVIATION	EXPLANATION	ABBREVIATION	EXPLANATION
AC	Alternating Current	MIN	MINute
A/D	Analog/Digital	MML	Maximum Modulation Level
AF	Auto Fader	MOL	Maximum Output Level
AMP	AMPlifier	MPX	Multi PleX
AR	Anti Recording	NC	Not Connected (No Connection)
AT BIAS	Auto Turning BIAS	NFB	Negative Feed Back
ATT	ATTenuator	NORM	NORMal
BAL	BALance	NR	Noise Reduction
BEF	Band Elimination Filter	OSC	OSCillator (OSCillation)
BSS	Blank Search System	P	Pulse
CAP M	CAPstan Motor	PB	Play Back
CH	CHannel	QMSS	Quick Memory Search System
COMP	COMParator	QR	Quick Reverse
CONT	CONTinuance	R CH	Right CHannel
CRLP	Computer Recording Level Processing	REC	RECOrd (RECOding)
CS	Chip Select	REV	REVERSE
D/A	Digital/Analog	ROT	ROTation
DC	Direct Current	REW	REWind
DET	DETector	SEC	SECOnd
DISCRI	DISCRIminator	SELE	SELEctor
DUB	DUBbing	SENS	SENSitivity
EQ	EQUALizer	SEPP	Single Ended Push Pull
FF (or F.FWD)	Fast Foward	SIG	SIGnal
FLD	FLuorescent Display	SPECT	SPECTrum
FREQ	FREQUENCY	STD	STANDARD
FWD	ForWARD	SW	SWitch
GND	GrouND	SYSCON	SYSTEM CONTROL
H	High	TP	Test Point
HPF	High Pass Filter	TRIG	TRIGa
IND	INDicator	VCA	Voltage Control Attenuator
IPLS	Instant Program Location System	VOL	VOLUME
L	Low	VOLT	VOLTage
L CH	Left CHannel	VR	Variable Resistor
LED	Light Emitting Diode	X'TAL	cysTAL
MEMO	MEMOry	X1	Normal speed
MICOM	MicroCOMputer	X2	Dubble speed

## 11. FINAL ASSEMBLY

Ref.No.	Part No.	Description
1	SP-390585M	PANEL FRONT
2	SE-394092M	REFLECTOR
3	SE-390574M	FILTER (A)
4	SE-394089M	FILTER LED X
5	SE-390575M	WINDOW(A)
6	SE-394091M	PLATE ORNAMENT
7	SE-395101M	DECORATION PLATE CENTER(A)
8	SE-390577M	DECORATION PLATE CENTER(B)
9	SE-390578M	PLATE FOOT AX
10	ZW-394496J	CANOE CLIP NO.74
11	SE-394190M	PLATE FOOT
12	SA-394136M	CUSHION FOOT
13	SZ-390612M	NC LATCH LA-1
14	SP-394081M	LID PANEL(L) X
15	SP-394078M	LID PANEL(R) X
16	SE-394090M	PLATE WINDOW
17	ZG-394158M	SP PLATE CASSETTE HOLDER
18	SE-394119M	LENS OPTICAL
19	SK-394133M	BUTTON POW
20	SK-390581M	BUTTON SELECTOR
21	SE-394085M	LENS DUB
22	SK-390584M	BUTTON OPERATION
23	SK-394084M	KNOB SLIDE
24	MZ-380875J	DAMPER 1G88-L
25	ZG-395934M	SP TORSION EJECT(L)
26	ZG-395935M	SP TORSION EJECT(R)
27	BB-394690M	MECHA GAK-5PB-1
28	BB-394691M	MECHA GAK-5RP
29	SK-390582M	KNOB SURROUND
30	SA-394127M	FOOT REAR
31	SK-394097M	KNOB VR
32	SK-394131M	KNOB TONE
33A	*BT-394692M	TRANS POW C1026-U
33B	*BT-394693M	TRANS POW C1026-EV
33C	*BT-394695M	TRANS POW C1026-BS
34A	SP-390589M	PANEL REAR AX-M400(U)
34B	SP-390590M	PANEL REAR AX-M400(E)
34C	SP-395850M	PANEL REAR AX-M400(V)
34D	SP-390591M	PANEL REAR AX-M400(B.S)
35A	*EW-374894	AC CORD 2C VM-0129A,VFF U/T [U]
35B	*EW-347897	AC CORD 2 CORES VM0364,LCFL EV [E,V]
35C	*EW-346249	AC CORD 2 CORES LCFL2X0.75 B [B]
35D	*EW-347898	AC CORD 2 CORES VM-0436,LCFL S [S]
36	*ES-349070	SW SELECTOR YKS11-0002 02-4
37	*EZ-371605	BUSH CORD 2271
38	SC-390588M	COVER UPPER

### NOTE:

Parts will not be supplied if they are not listed in the parts list, even if they appear on the assembling illustrations with reference No.

## 12. ACCESSARY

Ref.No.	Part No.	Description
1	AX-394557M	REMOCON RC-S600

## ABBREVIATIONS (AMPLIFIER)

ABBREVIATION	EXPLANATION
A	Analog
AC	Alternating Current
AMP	AMPlifier
CD	Compact Disc
COM	COMMon
D	Digital
D/A	Digital to Analog
DAC	Digital to Analog Converter
DAT	Digital Audio Tape recorder
DC	Direct Current
GND	GrouND
L	Left
LED	Light Emitting Diode
MC	Moving Coil
MM	Moving Magnet
PCB	Printed Circuit Board
R	Right
REG	REGulator
REC	RECORD
TR	TRansistor
SW	SWitch
V.AMP	Voltage AMPlifier
V.DISC	Video DISC
VR	Variable Resistance
VTR	Video Tape Recorder